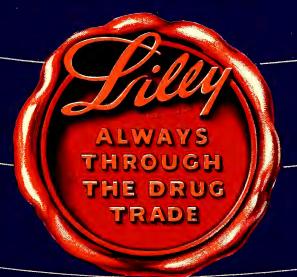




The Chellist & Inuguist

-ANNUAL SPECIAL ISSUE, JUNE 25, 1938

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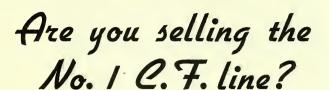
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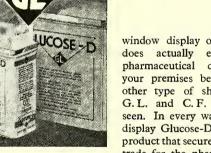


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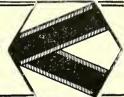
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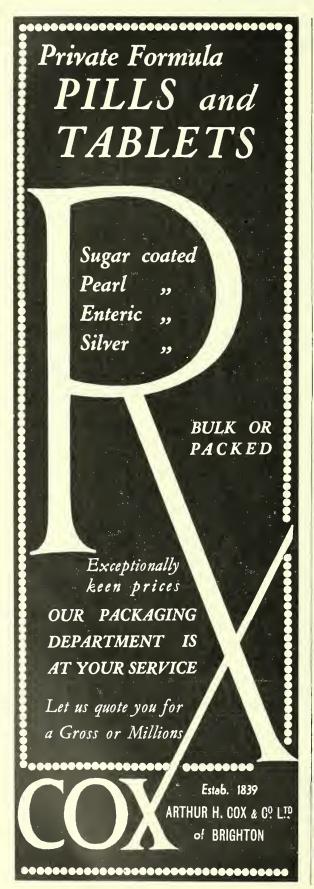
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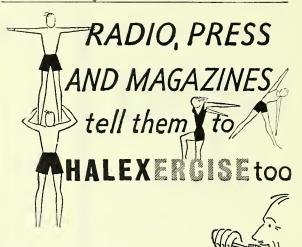
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In universal demand from consistent advertising

VOIGTLANDER CAMERAS, "BRILLIANT," "BESSA," "SUPERB," etc. VOIGTLANDER FILMS, "ILLUSTRA" and "BESSAPAN" Please address enquiries to Voigtlander, Dept. 'DC'





The new Halex advertising reaches right into your customers' homes.

The National Fitness campaign has made them interested in exercise, ready to *Halex*ercise too.

Newspapers, radio, the magazines that are read and re-read, all tell the Halexercise story. The three famous Halex shilling brushes will sell faster than ever. Order more Halex toothbrushes

### BIGGER CAMPAIGN helps your HALEX SALES

### **PRESS**

The Daily Mirror and Daily Sketch have been added to the newspapers carrying Halex advertisements.

### MAGAZINES

Radio Times, Everywoman's, Passing Show—a long list of the magazines people read more than once are used by Halex.

### RADIO

Popular comedian Joe Murgatroyd now puts Halex on the air twice a week from Radio Normandy, wave length 212.6 m.

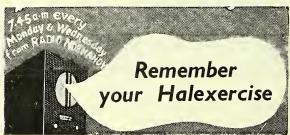
# FOR YOUR SALES OF HALEX TOOTHBRUSHES

Registered Trade Mark

now.

MADE IN ENGLAND

Order from your usual wholesaler or from The British Xylonite Company Limited, Hale End, E.4



# 50,626,000 ADVERTISEMENTS

in the National press are announcing

FITILIN

BRAND

THE THREE-MINUTE REVITALISING RUB

# IN AMERICA AND OTHER COUNTRIES SPIRIT RUBS ARE THE RAGE FITHIN" MADE BY AN ENGLISH FIRM

is now available to the public in 3 generous sizes 1/9, 2/6 & 4/6

Here is a scientific product which must appeal to a vast untapped market. Influenced by the National FITNESS CAMPAIGN, hundreds of thousands of people will, this summer, engage themselves in sport and exercise on a bigger scale than ever hitherto. Thousands will find the unwonted exertion will cause stiffness and a lingering form of fatigue. As a remedy, a preventive and a muscular tonic, YOU CAN WITH CONFIDENCE AND PROFIT RECOMMEND "FITILIN."

This fine display background in colour and other promotional matter FREE from the distributors.



# THIS REPRESENTS NEW TURNOVER FOR THE CHEMIST

Sole Distributors:

FASSETT & JOHNSON LTD. 86 Clerkenwell Road, London, E.C.1

Manufactured by:
LONDON SOLVENTS LTD.
30 South Audley Street, London, W.1

GRASP THE INTRODUCTORY BONUS OFFER OF 12 BOTTLES OF "FITILIN" FOR THE PRICE OF 10

NOW THE

# FAMOUS MERITOR TO BE RE-ADVERTISED

THESE UNITS LINK UP WITH MERITOR PRESS ADVERTISING



1938 MERITOR TOOTHBRUSH CASE



1938 MERITOR "OFF-THE-PEG" OPEN DISPLAY TOOTHBRUSH DEAL

### READ HOW TO CASH II

Re-advertising of Meritor Toothbrushes in the National Press commences from the 1st of June and continues for several months. Space has been booked in the daily papers with national coverage, the Radio Times and weekly and monthly magazines.

This will be vigorous and up-to-date advertising of a complete standard range of Toothbrushes, priced from 6d. to 1s. 9d. each, backed up by other special patterns.

This range is available in Wood and Glass Case Lots and in the new Open Display Toothbrush Deal, which is illustrated.

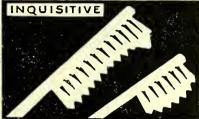
Customers report that re-sales are already very heavy from this fine "Off-the-Peg" Toothbrush Stand. The

OVER 20 MILLION ADVERTS.

# TOOTHBRUSHES THE NATIONAL PRESS

EXAMPLE OF AD

MERITOR⁹



No Dental neglect with Meritor Tooth Brushes! Oh, no! They're far too inquisitive. They can be bought in most sizes, shapes and textures to search and clean in every mouth.

Hygienic transwrapping -sterilized long life bristles—British made and guaranteed - colours for every taste prices for every pocket!

And the kiddies turn Dental Duty into Disney fun with Meritors in Snow White and Mickey Mouse patterns!

Choose your own from "Off-the-Peg" Stands or Cases at most Qualified Chemists, Hairdressers and Departmental Stores.

MAW OF LONDON

MERITOR CHEMISTS' SUNDRIES

THE MEDIA



# N THIS ADVERTISING

Brushes are displayed in orderly fashion and properly graded as to quality and price. If ever there was, at a glance, Toothbrush buying for the public, this is it.

Remember that Meritor Toothbrushes show you a very much greater margin of profit than any other advertised Toothbrush line.

Meritor Toothbrushes are already known by reason of a previous advertising campaign and the recommendations of our customers over a long period.

To cash in on this advertising now, be sure that you have your Wood and Glass Counter case in a good position and that it is well stocked up. In addition, or alternatively, you would be wise to order one of these "Off-the-Peg" Toothbrush Stands on favourable terms to ensure record profit.

N FIRST TWO MONTHS



bon't you feel like flea-slaughter yourself at the very sight of Ctenocephalus canis, reproduced here now in miniature from the 'Tailwagger' etc.? No difficulty about blotting him out—or making real money out of the process if you start a vet. counter with the Cooper Health Routine for mainstay. Quite small shops are turning over a steady £5 per week. Make a beginning yourself straightaway and remember that the Cooper Health Routine means three sales in one and nine times the profit in the year.

### **PULVEX VERMIN POWDER**

6d and 1/3 sprinkler tins

### **COOPER'S VITAMIN RATION**

1/6, 2/9, and 4/6

COOPER'S LIQUID WORM REMEDY

Small dogs 1/3, larger dogs 2/6 bottles

TRADE TERMS—less 331% and less 5% cash monthly

Evans' Super-Suspensible Carbonate of Bismuth

Suspensibility
Whiteness
Purity

Purity

A Pharmaceutical

Rescendo

Refinement upon Refinement

A sample and current prices sent post free on application to

Evans Sons Lescher & Webb Ltd.

LIVERPOOL and LONDON



AMSTERDAM BRAND MAARSSEN BRAND

QUININE and QUININE SALTS QUININE ETHYL CARBONATE CINCHONINE, CINCHONIDINE QUINIDINE and their SALTS

Manufactured by

N.V. Amsterdamsche Chininefabriek, Amsterdam

N.V. Nederlandsche Kininefabriek, Maarssen

EXCLUSIVE DISTRIBUTORS FOR THE UNITED KINGDOM:

# R.W. GREEFF & Co. Ltd.

Thames House, Queen Street Place, London, E.C.4

Phone: Central 6550 (10 lines)

Wires: " Greeff, Cannon, London "

and at

The Royal Exchange, Manchester

Phone: Blackfriars 9407-8. Wires: "Greeff, Manchester"

Société des Usines Chimiques Rhône-Poulenc PARIS

### PHARMACEUTICAL PRODUCTS

Acetyl Paraminosalol

Acid Phenylethylbarbituric (and Sodium)

Adrenaline

Amidopyrazoline (Amidopyrin)

Cacodylates

Chloroform

Digitalin

Ethyl Paraminobenzoate

Glycerophosphates

Guaiacol Carbonate

Guaiacol Crystals and Liquid

Lithium Salts

### **PHOTOGRAPHIC PRODUCTS**

Glyconyol

Hydroquinone

Paramidophenol Hydrochlor.

Rhodol (Metol 100 per cent.)

Sodium Sulphite (Anhydrous)

Methyl Salicylate

Paraldehyde

Phenacetin

Phenylsemicarbazide

Piperazine and Salts

Potassium Permanganate

Potassium Sulphoguaiacolate

Pyrazoline (Phenazone)

Pyrazoline Salicylate

Resorcin

Salol

Sodium Methyl Arsenate

### TECHNICAL **PRODUCTS**

Cellulose Acetate and Plastic Materials

Resorcin

Pyrazolone Derivatives

Sodium Sulphite (Anhydrous)

Acetic Anhydride

Dimethysulphate

O. Cresotinic Acid and O. Anisidine, etc.

VANILLIN and SUPER VANILLIN

# R.W. Greeff & Co. Ltd.

Phone: Central 6550 (10 lines)

THAMES HOUSE, QUEEN STREET PLACE, LONDON, E.C.4

Wires: "Greeff, Cannon, London."

and at 536-7 ROYAL EXCHANGE BUILDINGS, MANCHESTER Phone: Blackfriars 9407-8. Wires: "Greeff, Manchester."





# EAU - DE - COLOGNE

COOLING - REFRESHING

Green glass jars packed one dozen in showboxes. Sold with a guarantee to replace free of charge any sticks showing signs of shrinkage inside 6 months



Distributors-

Messrs, BURGE, WARREN & RIDGLEY Ltd. 91-92 SAFFRON HILL, LONDON, E.C.1

Telegrams: "Drugsund, Smith, London"

Telephone: HOLborn 0050



6d. SIZE



FROZEN-FAU-DE

COLOGNE

Cooling

and refreshing Relieves

Headaches

### KRASKA Liquid Nail Polish for bigger profits!

**BONUS TERMS** 

50/- parcel, with free bonus yields £4.4.8 £5 parcel, with free bonus yields £9.18.0 Smaller quantities 13 to the dozen All the newest shades, Cream or Transparent

The Kraska Co. Ltd. 65 PORTOBELLO ROAD, LONDON, W.11



IT WORKS = like Magic!

The MAGIC Hair Remover it certainly is-this Venida Parisian Plaque. Women buy it because it works like magic—leaving the skin soft and velvety. And it sells like magic, too! You can obtain Display Cabinet of 6 doz. Plaques at 4/per doz., to retail at 6d each.

Obtainable from your usual suppliers or, post free, from:-VENIDA LTD

60 Poland St., London, W.1

PARISIAN PLAQUES



**SALES ARE EASIER DAY BY DAY!** 

6,000,000 Women read Adelaide Grey's LALEEK Advertisements every month

STOCK AND DISPLAY THESE TWO STAR LINES-

LALEEK LONGLASH * LALEEK WAX-A-WAY

Obtainable through your Wholesaler, or direct from ADELAIDE GREY LTD., 27 OLD BOND STREET.

# ESSENTIAL

RECTIFIED, **TERPENELESS** 

# **EXTRACTS**

SOLID POWDERED, LIQUID

# **POWDERED** DRUGS

GUMS, SPICES,

TINCTURES, OINTMENTS EMULSIONS, SPIRITS RESINS & OLEO-RESINS ETC.



& SONS, LTD. LONDON, N.I

20-42 WHARF ROAD

Telephone: Clerkenwell 1000 (7 lines)



Telegrams: Staffallens, Nordo, Ldn.



A FULLY EQUIPPED PRINTING DEPARTMENT provides for every requirement of THE RETAIL PHARMACIST. We have a variety of standard designs of labels and cartons to choose from and are prepared to make or carry out suggestions for individual chemists "SPECIAL BRAND" packs,

FULL RANGE OF STANDARD TABLETS

AND PILLS is manufactured and a comprehensive stock carried. WECANSUPPLY EITHER in BULK OR PACKED READY FOR SALE. We specialize in National Formulary lines packed in convenient quantities from 100 upwards, and in the preparation of SPECIAL PRESCRIPTIONS in any quantity, small or large.

buy from

# THE COOPER LABORATORY

THE SPECIALIST HOUSE, WATFORD

And ensure Quality, Service and Personal Attention to individual requirements, combined with competitive prices

Special quotations for EXPORT, F.O.B. or C.I.F.

### PROPRIETARY REMEDIES

We exercise the greatest care in the manufacture of proprietary lines and can supply either in bulk or packed for market including printing special designs of labels and cartons.

SILVER COATING A SPECIALITY.

OUR COMPREHENSIVE PRICE LIST WILL HELP YOU TO INCREASE SALES, WRITE FOR IT NOW



"Alluwant"...

and when you want it!

NO QUICKER DE LIVERY-NO BETTER PRICES

BUTLER CRISPE

1938

& CRISPE'S CATALOGUE

ESTABLISHED 1777

PERFUMERY BY ALL MAKERS

PATENT MEDICINES

HOUSEHOLD
PROPRIETARY ARTICLES
INVALID FOODS, etc.

PERFUMERY AND TOILET GOODS ALL MAKERS

DRUGS AND
PACKED GOODS
CHEMISTS' SUNDRIES

ROLL FILMS, etc.

IMPORT and EXPORT

MERCHANTS

DRUGGISTS' SUNDRIES

PHOTOGRAPHIC GOODS

PROPRIETARY MEDICINES
ENGLISH AND FOREIGN

PACKED GOODS

80-84
CLERKENWELL ROAD
LONDON E.C.I

TELEPHONE
CLERKENWELL 2661 (IS LINES)
TELEGRAMS ALLUWANT SMITH LONDON
TELEGRAMS ALLUWANT LONDON

1938

LIPSTICKS NAIL POLISHES

FACE POWDERS
TOILET CREAMS

DRUGS

# BUTLER & CRISPE

80.84 CLERKENWELL ROAD · LONDON · E·C·I

TELEPHONE: CLERKENWELL 2661 (15 LINES) TELEGRAMS: "ALLUWANT," SMITH, LONDON



Labelled for display

# AYRTON SAUNDERS & CO. LTD.

LIVERPOOL-

-----AND-

DUBLIN

June 25, 1938

THE CHEMIST AND DRUGGIST

# TON'S

for

# DRUGS ED GOODS SUNDRIES

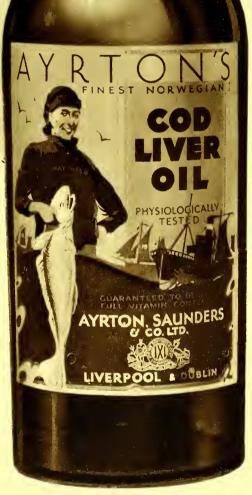
for

QUALITY
SERVICE

TRADITION



SUNDRIES
DRESSINGS
SURGICAL
SICKROOM
BOTTLES
BOXES
FANCIES
SPONGES
PATENTS



Let Ayrton's be your House



The Aristocrat of Olive Oils

ELEGANTLY PACKED
A PROFITABLE LINE, WORTHY
OF THE ATTENTION OF
DISCRIMINATING BUYERS.
FREE DISPLAY STAND WITH ORDERS
OF 3 DOZEN ASSORTED SIZES.

RETAIL 9d., 1/3, 2/3, 4/- per bottle, WHOLESALE 5/9, 8/9, 15/6, and 28/3

Orders for 3 dozen and upwards an Allowance of 5% discount for displaying Showstand

# Lavilles



# Series

# DESIGNED TO COMPETE WITH STORE COMPETITION

A NEW RANGE OF SUPERIOR TOILET PREPARATIONS "RESERVED EXCLUSIVELY FOR PHARMACISTS" ATTRACTIVE PACKINGS IN 2-OZ. DAINTY WHITE FLINT, WITH BAKELITE CAPS

THESE TOILET LINES ARE ALSO PACKED IN 4-OZ. SIZE TO RETAIL AT 1/-. DOZ. 6/6. GROSS 72/-



Bay Rum, Bay Rum & Cantharidine
Brilliantine, Coconut Oil Shampoo,
Glycerine & Rose Water, Glycerine & Cucumber,
Hair Cream (Non-Greasy),
Hair Cream (with Oil)
Hair Setting Lotion, Pine Shampoo,
Sea Foam Dry Shampoo,
Sunburn Lotion, Sun Tan Oil,
Toilet Paraffin, Violet Oil.

# JOHN THOMPSON

(WHOLESALE DRUGGISTS 1921) LTD.

27-35 · DUKE STREET

LIVERPOOL

# Everything for the chemist . . .

DRUGS,
GALENICALS,
PHARMACEUTICAL CHEMICALS,
TABLETS, PILLS,
PACKED GOODS,
SURGICAL DRESSINGS,
SUNDRIES, PATENT MEDICINES,
& PHOTO & ELECTRICAL GOODS.

Packers of HIGH CLASS SPECIALITIES for the HOME & EXPORT TRADES.

# BROOK, PARKER

AND COMPANY LIMITED
7-II ASHFIELD · HORTON ROAD · BRADFORD

### **40 YEARS' CONTINUOUS PROGRESS**

the result of our successful combination of highest quality, competitive prices, and speedy delivery. Send us your next enquiry—our prices are keenly competitive.



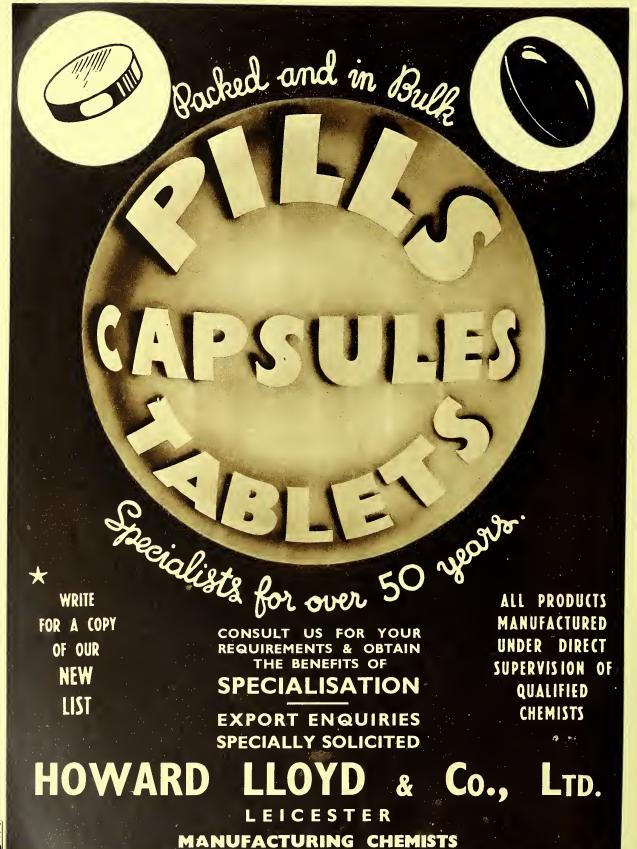
Original warehouse acquired in 1916. Now used as Offices, Showroom, Patent Medicine & Photographic Showrooms. Five storeys high (the basement and top floor cannot be seen in this photograph).



New warehouse built by us in 1920, immediately behind and attached to the above building. This building is used mainly for manufacturing and storage purposes, and has a floor area of about 5,000 square yards.



New warehouses immediately opposite the above, bought in 1933, with a floor area of about 1,500 square yards and a similar area available for further extensions when required.



C&D



# Quick!!

# GET YOUR PROSPECTUS

The biggest Hair and Beauty Fair in history! Every single floor in Olympia's famous Empire Hall will be pressed into service for this year's wonder show, which already promises to set up a new record in size, importance and value. Opening day is September 20th—only 3 short months ahead! Already the enquiries are pouring in—sites are being booked. The official prospectus, now ready, gives complete details of stand design plans and accommodation at the Fair. Write for your copy to-day.

### BOOK YOUR STAND

An advertising campaign is being undertaken on such a scale that the organisers confidently expect thousands more visitors than ever before in the Fair's history. Trade buyers from all over the world will be at the Fair as well as many thousands of chemists—for nowhere else in the world is it possible to inspect such a large and comprehensive display of the latest ideas in perfumery, toilet and fancy goods. All the leading manufacturers and distributors will be

represented. Can you afford not to exhibit? Sites are already being booked. To ensure a good position you must reserve your space without delay. Do it now!

now ready

Write for prospectus and details of stands available to Exhibition Manager, 33 Great Queen St., London, W.C.2. Holborn 6515.



RETAIL DEALERS'

# PRICE LIST

(P.A.T.A.)

CLEMINITE for a face lotion 2/6 tin 1/10½ STALLAX for a shampoo 2/6 tin 1/10½ STALLAX (Small) for a shampoo 1/6 tin 1/10½ PHEMINOL for a hair remover 4/- jar 3/- PERGOL for a deodorant 2/6 tin 1/10½ JETTALINE for clearing the skin 3/6 tube 2/7½ ALLACITE of ORANGE BLOSSOM for a face cream 2/6 tin 1/10½ PILENTA SOAP for the complexion MENNALINE for the eyelashes 2/6 tin 1/10½ PLENTA SOAP for the complexion MENNALINE for the eyelashes 2/6 tin 1/10½ For a face tint 1/6 1/10½ COLLIANDUM (Solide) for a face tint 2/6 1/10½ PROLACTUM for the lips 1/- tube 10d. MERCOLIZED WAX for the complexion 2/- jar 1/4 MERCOLIZED WAX for the complexion 3/6 jar or tin 2/4 PARSIDIUM an astringent face jelly TEKKO PASTE camphor cream 2/6 bottle 1/10½ SILMERINE hair curling fluid 2/6 bottle 1/10½ TAMMALITE hair colour restorer 2/6 bottle 1/10½ BICROLIUM for whitening the hands 2/6 jar 1/10½ LIQUID PERGOL to check excessive perspiration locally 3/6 bottle 2/7½ SIPOLITE a hair remover 2/- jar 1/6 COCONOIDS for figure development 3/6 bottle 2/7½ SIPOLITE a hair remover 2/- jar 1/6 COMPLEXION POWDER Natural, Rachel 1, Rachel 2, Golden Tan 1/9 1/2 POWDER CREAM Natural, Rachel 1, Fachel 2, Golden Tan 1/9 1/2 POWDER CREAM Natural, Rachel 1, Fachel 2, Golden Tan 1/9 1/2 POWDER CREAM Natural, Rachel 1/5 tube 1/10½ TICK Dark, Medium, Natural 3/6 2/4 LAVALLA sun tan cream 2/6 tube 1/10½		Min. P.A.T.A. Retail Price	Price to Dealer
PHEMINOL for a hair remover 4/- jar 3/- PERGOL for a deodorant 2/6 tin 1/10½  JETTALINE for clearing the skin ALLACITE of ORANGE BLOSSOM for a face cream 2/6 tin 1/10½  BORANIUM for a hair tonic 2/6 tin 1/10½  PILENTA SOAP for the complexion MENNALINE for the eyelashes 2/6 tin 1/10½  COLLIANDUM (Solide) for a face tint COLLIANDUM (Solide) for a face tint COLLIANDUM (Powder) for a face tint 2/6 1/10½  PROLACTUM for the lips 1/- tube 10d. MERCOLIZED WAX for the complexion 2/- jar 1/4  MERCOLIZED WAX for the complexion 3/6 jar or tin 2/4  PARSIDIUM an astringent face jelly TEKKO PASTE camphor cream 2/6 butle 1/10½  SILMERINE hair curling fluid 2/6 bottle 1/10½  TAMMALITE hair colour restorer 2/6 bottle 1/10½  BICROLIUM for whitening the hands 2/6 jar 1/10½  LIQUID PERGOL to check excessive perspiration locally 3/6 bottle 2/7½  STYMOL for olly complexions and blackheads 4/ bottle 3/- COCONOIDS for figure development 3/6 bottle 2/7½  SIPOLITE a hair remover 2/ jar 1/6  COMPLEXION POWDER Natural, Rachel I, Rachel 2, Golden Tan 1/9  POWDER CREAM Natural, Rachel 1/ jar 8d. FOUNDATION CREAM 1/3 tube 10d. LIP STICK Dark, Medium, Natural 3/6	STALLAX for a shampoo	2/6 tin 2/6 tin	1/103
for a face cream 2/6 tube 1/10½ BORANIUM for a hair tonic 2/6 tin 1/10½ PILENTA SOAP for the complexion MENNALINE for the eyelashes 4/— tube 3/— COLLIANDUM (Solide) for a face tint COLLIANDUM (Refill for Solide) for a face tint 1/6 1/10½ PROLACTUM for the lips 1/6 1/10½ PROLACTUM for the lips 1/- tube 10d. MERCOLIZED WAX for the complexion 2/- jar 1/4 MERCOLIZED WAX for the complexion 3/6 jar or tin 2/4 PARSIDIUM an astringent face jelly TEKKO PASTE camphor cream 2/6 buble 1/10½ SILMERINE halr curling fluid 2/6 bottle 1/10½ TAMMALITE hair colour restorer 2/6 bottle 1/10½ BICROLIUM for whitening the hands 2/6 jar 1/10½ LIQUID PERGOL to check excessive perspiration locally 3/6 bottle 2/7½ STYMOL for olly complexions and blackheads 4/- bottle 3/- COCONOIDS for figure development 3/6 bottle 2/7½ SIPOLITE a hair remover 4/- bottle 3/- COMPLEXION POWDER Natural, Rachel 1, Rachel 2, Golden Tan 1/9 POWDER CREAM Natural, Rachel 1/- jar 8d. FOUNDATION CREAM 1/3 tube 6d. FOUNDATION CREAM 1/3 tube 10d. LIP STICK Dark, Medium, Natural 3/6	PHEMINOL for a hair remover PERGOL for a deodorant JETTALINE for clearing the skin	4/— jar 2/6 tin	3/ <del>-</del> 1/10½
MENNALINE for the eyelashes 4/- tube 3/- COLLIANDUM (Solide) for a face tint 2/6 1/10½ COLLIANDUM (Refill for Solide) for a face tlnt 1/6 1/1½ COLLIANDUM (Powder) for a face tint 2/6 1/10½ PROLACTUM for the lips 1/- tube 10d. MERCOLIZED WAX for the complexion 2/- jar 1/4 MERCOLIZED WAX for the complexion 3/6 jar or tin 2/4 PARSIDIUM an astringent face jelly 1/- tube 10d. TEKKO PASTE camphor cream 2/6 bottle 1/10½ SILMERINE halr curling fluid 2/6 bottle 1/10½ TAMMALITE hair colour restorer 2/6 bottle 1/10½ BICROLIUM for whitening the hands 2/6 jar 1/10½ STYMOL for olly complexions and blackheads 3/6 bottle 2/7½ STYMOL for olly complexions and blackheads 4/- bottle COCONOIDS for figure development 3/6 bottle 2/7½ SIPOLITE a halr remover 2/- jar 1/6 COMPLEXION POWDER Natural, Rachel 1, Rachel 2, Golden Tan 1/9 POWDER CREAM Natural, Rachel 1/- jar 8d. FOUNDATION CREAM 1/3 tube 6d. FOUNDATION CREAM 1/3 tube 10d. LIP STICK Dark, Medium, Natural 3/6	for a face cream BORANIUM for a hair tonic	2/6 tin	1/103
COLLIANDUM (Powder) for a face tint 2/6    1/10\frac{1}{2} PROLACTUM for the lips    1/- tube    10d.     MERCOLIZED WAX for the complexion    2/- jar    1/4     MERCOLIZED WAX for the complexion    3/6 jar or tin 2/4     PARSIDIUM an astringent face jelly    1/- tube    10d.     SILMERINE halr curling fluid    2/6 tube    1/10\frac{1}{2}     SILMERINE halr curling fluid    2/6 bottle    1/10\frac{1}{2}     TAMMALITE halr colour restorer    2/6 bottle    1/10\frac{1}{2}     BICROLIUM for whitening the hands    2/6 jar    1/10\frac{1}{2}     LIQUID PERGOL to check excessive perspiration locally    3/6 bottle    2/7\frac{1}{2}     STYMOL for olly complexions and blackheads       4/- bottle    2/7\frac{1}{2}     COCONOIDS for figure development    3/6 bottle    2/7\frac{1}{2}     SIPOLITE a halr remover       2/- jar    1/6     COMPLEXION POWDER Natural, Rachel    Rachel	MENNALINE for the eyelashes COLLIANDUM (Solide) for a face tint COLLIANDUM (Refill for Solide)	4/- tube	3/- 1/10½
complexion 2/- jar 1/4  MERCOLIZED WAX for the complexion 3/6 jar or tin 2/4  PARSIDIUM an astringent face jelly 1/- tube 10d. 1/10½  SILMERINE halr curling fluid 2/6 bottle 1/10½  TAMMALITE halr colour restorer 2/6 bottle 1/10½  BICROLIUM for whitening the hands 2/6 jar 1/10½  LIQUID PERGOL to check excessive perspiration locally 3/6 bottle 2/7½  STYMOL for olly complexions and blackheads 4/ bottle 3/  COCONOIDS for figure development 3/6 bottle 2/7½  SIPOLITE a halr remover 2/ jar 1/6  COMPLEXION POWDER Natural, Rachel 1, Rachel 2, Golden Tan 1/9  POWDER CREAM Natural, Rachel 1/ jar 8d.  FOUNDATION CREAM 1/3 tube 6d.  FOUNDATION CREAM 1/3 tube 10d.  LIP STICK Dark, Medium, Natural 3/6	COLLIANDUM (Powder) for a face tir PROLACTUM for the lips	it 2/6	1/10월
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STYMOL for olly complexions and blackheads 4/- bottle 3/- COCONOIDS for figure development 3/6 bottle 2/7½ SIPOLITE a hair remover 2/- jar 1/6 COMPLEXION POWDER Natural, Rachel 1, Rachel 2, Golden Tan 1/9 1/2 POWDER CREAM Natural, Rachel 1/- jar 8d. FOUNDATION CREAM 9d. tube 6d. FOUNDATION CREAM 1/3 tube 10d. LIP STICK Dark, Medium, Natural 3/6 2/4	BICROLIUM for whitening the hands LIQUID PERGOL to check excessive	2/6 jar	1/102
COMPLEXION POWDER Natural, Rachel I, Rachel 2, Golden Tan 1/9 1/2 POWDER CREAM Natural, Rachel 1/- jar 8d. FOUNDATION CREAM 9d. tube 6d. FOUNDATION CREAM 1/3 tube 10d. LIP STICK Dark, Medium, Natural 3/6 2/4	STYMOL for olly complexions and	•	3/-
POWDER CREAM Natural, Rachel 1/- jar 8d. FOUNDATION CREAM 9d. tube 6d. FOUNDATION CREAM 1/3 tube 10d. LIP STICK Dark, Medium, Natural 3/6 2/4	COMPLEXION POWDER Natural,	2/- jar	1/6
	POWDER CREAM Natural, Rachel FOUNDATION CREAM FOUNDATION CREAM	l'/ jar 9d. tube	8d. 6d.
		3/6	

# The Products of Messrs. PARKER, BELMONT & CO.

CLYNOL BERRIES (unstamped)
for obesity ... ... 4/-- jar 2/8
SOFT PALERIUM for wrinkles 5/-- jar 3/9

A Bonus of 10% is allowed on orders of £3 for cash with order and display, or through your wholesaler.

### ALL OTHER ACCOUNTS STRICTLY NETT.

Order from Your Wholesaler, or from:

### **DEARBORN (1923) LIMITED**

37 Gray's Inn Road, London, W.C.1 ~

Cable and Telegraphic Address: JAVEDAN, HOLB, LONDON

Telephone No.: HOLborn 9669

# SUMMER DAYS BRING INCREASED DEMAND

HOLIDAYS, CRUISES, TOURING, etc.

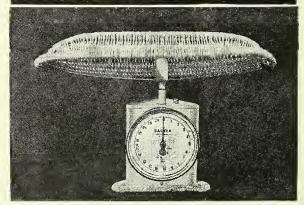




105/107 Princess St., MANCHESTER

London Agent: G. H. Bolton, Oxford Hse., Falcon Square, Aldersgate St., E.C. I

# The IDEAL BABY WEIGHER



The 52B is a high quality balance, fitted with "Quickstop" mechanism. The dial is now enlarged to  $6\frac{1}{2}$ ", is glass covered, and has a chrome-plated rim. It is especially suitable for nurseries and clinics. Complete list of all balances and personal scales available from



# SALTER

GEO. SALTER & CO. LTD. DEPT. (C4), WEST BROMWICH

# PROFIT FROM THE SUNSHINE!

### 3 TIPS FOR SUMMER SALES

1 VINOLIA — THE SOAP THAT FRESHENS YOU.

The ideal hot-weather soap — cooling, invigorating, with the most refreshing perfume in the world. Now available in 3-tablet cartons — also in Visitor's and Bath sizes.

VINOLIA SHAVING STICK FOR LASTING SHAVES.

Beards grow faster in hot weather. Men need the closer, longer-lasting shaves which Vinolia gives. Only 9d in a bakelite drainer case. Also a refill at  $7\frac{1}{2}$ d.

3 VINOLIA TALCUM - FOR HOT-WEATHER COMFORT.

There's nothing like a good Talcum for preventing the discomforts of hot weather. And Vinolia in its distinctive big canister is the easiest-selling Talcum you can display.

**AND DON'I FORGET** LEMBENOL, for preventing midge and mosquito bites or allaying the irritation afterwards. VINOLIA BABY CREAM for preventing or soothing sunburn in grown-ups as well as baby. VINOLIA GLACIER COLOGNE—wonderfully cooling, refreshing and only I/-. And finally, SPRINKO—the best of all hand-cleaners for gardeners, motorists, etc.

ESPECIALLY IN THE SUMMER IT PAYS TO DISPLAY....

# VINOLIA



New showcards, specimens and special offers on request VINOLIA Co., Ltd., BEBINGTON, WIRRAL, CHES.

VT 163-55t



# BRYLFOAM

THE Family SHAMPOO

BRYLFOAM means big money. There's  $37\frac{1}{2}\%$  profit on every tube you sell. And when you sell

BRYLFOAM you sell to everyone in the family! So see that your displays link up with the BRYLFOAM National advertising and that your stocks are sufficient. Order to-day and ask for showcards, etc. Remember, BRYLFOAM can be bought only at chemists and hairdressers.



371% PROFIT ON EVERY TUBE!

PLEASE POST THIS COUPON

To: The County Perfumery Co., North Circular Road,

West Twyford, London, N.W.10

Please ask traveller to call.

NAME.....

ADDRESS .....





LONDON & PROVINCIAL FACTORS LTD 146 THEOBALDS ROAD LONDON. W.C.I. and at 16 Withy Grove, Manchester

WILLIAMS' Shaving Preparations
KHASANA Lipstick & Blush Cream
SILVIKRIN Hair Treatments
KEMDEX Denture Cleanser

Sole Distributors:

SCOTT & BOWNE, LTE.
10/11 STONECUTTER ST., LONDON, E.O.





# Thousands of lips... are waiting for GUITARE indelible-patural-traceless

The newest addition to the C & N. range—and it is good!

In face of intense competition in the highly selective French market, GUITARE has scored a spectacular success in France.

Here at last is a lipstick that does not come off, and lives up to its claim in a new way.

Only three months ago GUITARE came on the British market, and tens of thousands of women have acclaimed it as the thing they have been waiting for.

There's no need for shelves, with GUITARE! Thanks to a strong national campaign, it sells itself, and they come again and again!

GUITARE comes in 14 natural, glowing, transparent colours, from the ligh!est to the darkest shades Attractive De Luxe pack (retailing at 4s. 6d.) shows 18s profit per dozen. Standard (2s.), and Trial Size (6d.) show the same generous profit.

You are missing something if you don't get in touch to-day with

THE SOLE DISTRIBUTORS FOR U.K.



# CHEMICAL & NATURAL PRODUCTS LID.

WIMBLEDON FACTORY ESTATE, MORDEN RD., LONDON, S.W.19

# DOYOUKNOW that

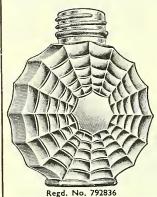
PAPIER POUDRÉ is the most hygienic and popular summer toilet luxury for motoring and every form of sport and travel? It removes all grease and dust from the pores and powders perfectly, enabling any woman to look fresh and dainty at all times.

MAKE EXTRA SALES BY SHOWING IT PROMINENTLY

A Blue and Silver Display Stand FREE with an order for 3 dozen 8d. (or the equivalent in other sizes).

From all wholesalers or direct from the sole manufacturers: PAPIER POUDRÉ LTD., 46 BAKER STREET, LONDON, W. I

We are also sole manufacturers of Papier Poudré Outfits, Soap Leaves, Nail Polish Leaves, Cottage Garden Perfumes and
Pot Pourri Sachets, Sandal-Cedar Moth Bags, etc., etc.



* Latest designs and novelties ...

# BATH SALT BOTTLES PERFUME SPRAYS

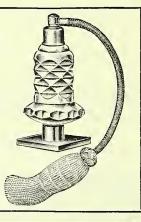
VANITY CASES and MANICURES
GLASS TALCUM BOTTLES
POWDER BOWLS, glass and metal

Wholesalers and Shippers ONLY supplied

### WALTER KAY LIMITED

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AVOCADO PEAR OIL

An essential ingredient in the preparation of finest quality

TOILET SOAPS • COSMETICS • CREAMS • LOTIONS

"The Sunshine Oil that will improve your products"

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# SPONGE HOUSE



### LARGEST SPONGE WAREHOUSES IN THE WORLD

with the largest stocks of all Sponges imported direct by us from the Fisheries at lowest prices. Buyers are invited to call and inspect our large and varied stocks, and they will convince themselves that they are dealing in the "CHEAPEST MARKET."

## MAKE YOUR PURCHASES OF SPONGES NOW FOR THE COMING SEASON

Having imported the best and cheapest parcels of Honeycomb and Fine Turkey sponges of the new season's Fishery, packed at our establishment at Ægina, Greece, we will offer special lines for chemists' trade at very low prices.

Being desirous of inducing Chemists to make window shows of excellent quality sponges at popular prices, we are offering these lines for the purpose of increasing the sale of Sponges amongst Chemists. It will pay to feature Sponges this season, and we would strongly advise Chemists to select cases from the following list, which would enable them to make a display which would convince the public that the Sponges are being offered cheaper than for some years past.

We are prepared to send any of the cases here offered, rail paid, which could be cellophane wrapped and ticketed if desired.

Chemists are invited to visit our warehouses, where the largest and cheapest stock is on view for their inspection in Honeycomb and Fine Turkey Sponges, in small original cases.

### SPECIAL SALE LINES

				ALITY TO Averag						Ori	ginal		300	pieces.	TOILET A			piecc	6d. eac
		250	-	_	-	-	_	1/-		1	99	97	250	"	,,	,,	"		8d. ,, 1/
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## ROTHERS

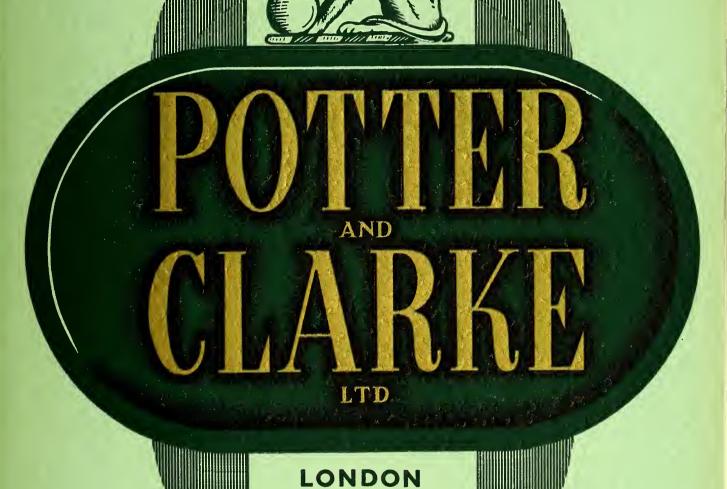
Branch of International Sponge Importers, Ltd. Sponge Importers, Exporters and Merchants, and Chamois Leather Dressers

19 RED LION SQUARE, LONDON, W.C.1

With the Largest Stocks of all Sponges Imported direct by us from the Fisheries at Lowest Prices

Write for Prices We Invite Competition

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WORLD-WIDE SERVICE TO THE TRADE THROUGHOUT EIGHT REIGNS - EST. 1811

60-64

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MANCHESTER
77 DANTZIC STREET 4
Telephone-BLAckfriars 8734

# Potter & Clarke's BRANDS

# LIQUORICE JUICE THE FINEST ON THE MARKET



Llama Brand, ½, 1, 2 & 4 oz. sticks.

Palermo ... 1 & 2 oz. sticks.

Anconia Brand... ... 3 oz. sticks,

Packed in 7-lb. wood boxes or 1 lb. cartons	1 lb.	7 lb.	14 lb.	28 lb.	56 lb.	1 cwt.	1 cwt. Cases loose packed in Bay Leaves
2, 3, & 4 oz. sticks 1 oz. sticks ½ oz. sticks	1/8	1/7	1/6	1/4 1/5 1/7	1/31 1/41 1/61		1/2 1/3 1/5

Customer's own name or brand on 2 cwt. lcts free of charge

## **CASSONA**

(REGISTERED)



## Ounce CHUBBY STICKS

## Cassona Juice

1 & 2 oz. sticks in 4 lb. cartons
4lb. 16lb. 28lb. 56lb. 1cwt.
1/6 1/5 1/4 1/3 125/Cuttomer's own name on 2 cwt. lots free of

3d. Paiermo Juice (1 oz. chubby sticks), 3 doz. In box ..... gross 15/9 ½ oz. Liana Juice, 3 doz. in box ..... , 8/6 "Solazzi"

1 lb. 2/11, 7 lb. 2/9, 28 lb. 2/7, 56 lb 2/6 per lb.

Block Juice, finest obtainable.

Block Juice, finest obtainable, 1 lb. 1/2, 10 lb. slab 1/1, cwt. 9d., 2 cwt. case 80/-

# POTTER & GLARKE LTD. 60-64 ARTILLERY LANE, LONDON, E.I

Grams: Horehound, Phone, London Phone: BIShopsgate 4761 (6 lines)

**MANCHESTER: 77 DANTZIC STREET** 



# GALENICALS

Continuous research characterises the production of our Galenicals

LIQUID EXTRACTS · TINCTURES INFUSIONS **DECOCTIONS** • EMULSIONS and all Pharmaceutical preparations

## POTTER & CLARKI

60 - 64 ARTILLERY LANE, LONDON, E.1 77 DANTZIC STREET, MANCHESTER, 4 'Phone: BIShopsgate 4761 (6 lines 'Grams: Horehound, Phone, London 'Phone: BLAckfriars 8734 'Grams: Horehound, Manchester







Prepared to the advertised formula with a very

## **SPECIAL APPEAL TO MOTORISTS**

8d bottles 4/6 per doz. 1/- bottles 8/- per doz.

•Showcard as illustrated with every order



* Showcard with every order.

LIDA

AFTER SUN-BATHING APPLY THE LOTION FREELY AND ALLOW TO DRY ON THE SKIN

## 'LIDO'

## Sunburn Lotion and Suntan Oil

6d bottles (3 oz.)

3/9 per doz. 3 doz. 3/6 per doz. 10!d bottles 6 oz.)

6/6 per doz 3 doz. 7/- per doz

## ER & CLARI

60-64 ARTILLERY LANE, LONDON, E.1

77 DANTZIC ST., MANCHESTER, 4

PHONE: BIShopsgate 4761 (6 LINES) GRAMS: HOREHOUND, PHONE, LONDON

PHONE: BLAckfriars 8734 GRAMS: HOREHOUND, MANCHESTER Insect

POTTERS

WEED KILLER

AWN

AND

## Horticultural Products

WINGED

SUG KHIER

37

TREE BANDING GUY

2

WORM

KILLER



LION BRAND

Registered Trade Mark

## WHOLESALE PRICE LIST

CONCENTRATED INSECTICIDE

8/-, 13/6,24/6,42/6 per doz.

**DERRIS PASTE** 4/-, 1/4, 1/3, 1/2 doz per Ib.

PARAFFIN SOAP EMULSION

6/-, 9/-, 15/- per doz.

LAWN SAND 7/6, 17/6, 51/6 per doz.

NICOTINE-SOAP WASH

7/-, 24/- per doz.

**QUASSIA SOAP** 

4 -, 6/6, 10 - per doz.

SLUG KILLER 6/6 per doz.

> IL FUMICAY 2

RIS PASTE

MANUAL PLY

ASSIA SOA

DERRIS

SOIL FUMIGANT

6 6 per doz.





In tins 1 pint to 10 gals.
9/- per doz. to 29/6 each



In tins 4 oz. to 7 lbs. 5/- doz. to 7/- each.

### NON-POISONOUS WEED KILLER

In tins 1 lb. to 28 lbs. 8/6 doz. to 14/- each.

WORM KILLER

In tins 4 lbs. to 28 lbs. 9/- doz. to 3/6 each.



POTTER INSECTICIDE

A separate list and order forms are available for our flower, vegetable and grass seeds and plant foods.

## See General Price List for

bulk prices of Sulphate of Ammonia, Sulphate of Copper, Nitrate of Soda, Pearl Ash, Chlorate of Soda, Sulphate of Iron, Bone Meal, etc.

## POTTER & CLARKE LT

60-64 ARTILLERY LANE, LONDON, E.1, and at 77 DANTZIC ST., MANCHESTER, 4. 'Phone: BIShopsgate 4761 (6 lines). Grams: Horehound, 'Phone, London. 'Phone: BLAckfriars B734. 'Grams: Horehound, Manchester.

## JUST A REMINDER!

# Have you tried 'Potter's'?

IF YOU ARE A BUYER OF LARGE OR SMALL QUANTITIES OF THE UNDERMENTIONED PREPARATIONS YOU WILL DO WELL TO ASK US FOR PRICES AND SAMPLES :--

APIOL, B.P.C. LIQUID-GREEN	INSECT POWDER OWN GRINDING from closed Dalmation Flowers
CLOVE OIL 90% Eugenol. Distilled at our works from finest Zanzibar Cloves	IODOFORM, B.P. POWDER, PRÆCIP. or CRYSTAL
CITRATES POTASS. CIT. SODÆ CIT. FERRI ET AMMON. CIT.	JALAP RESIN, B.P.C.
Ferri et Ammon Cit. B.P. IN FINE SCALES OR GRANULES Remains clear when dispensed with Mag. Sulph.	ESSENTIAL OILS ENGLISH DISTILLED or IMPORTED
EUGENOL and ISOEUGENOL	OIL of NUTMEG, B.P. OUR OWN DISTILLATION
Ext. Cascara Sag., B.P.  GRAN. for tablet makers	OIL of CROTON, B.P. OUR OWN PRESSING
EXT. FILICIS, B.P. OLEO-RESIN MALE FERN	Scammony Resin, B.P.  LUMP or POWDER
ERGOT. PRÆP., B.P. & OTHER ERGOT PREPARATIONS	TEREBENE, B.P.
EXTRACTS SOLID, POWDER or FLUID	POWDERED DRUGS

## **Potter and Clarke Limited**

60-64 ARTILLERY LANE, LONDON, E.I 'Phone: BIShopsgate 4761 (6 Ilnes) 'Grams: Horehound, Phone, London 77 DANTZIC STREET, MANCHESTER, 4

'Phone: BLAckfriars 8734.
'Grams: Horehound, Manchester

# steady national advertising

... ENSURES STEADILY INCREASING SALES!

## POTTER'S ASTHMA & CATARRH Remedies

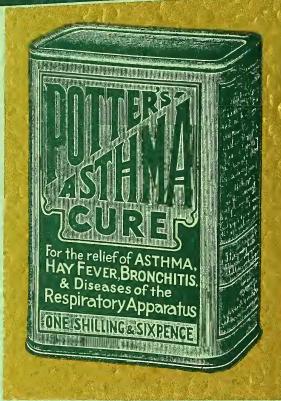
... 60 years a household word

# **BONUS TERMS**

Remedies and/or Catarrh Pastilles we offer a bonus discount of 5% (Journey account, or if no journey, monthly account) in return for a window display of these goods. The prices of Potter's Advertised Remedies are POTTER'S ASTHMA CURE - - 14/- doz. POTTER'S ASTHMA CIGARETTES 14/- doz.

On orders for 6 dozen Potter's Asthma

POTTER'S SMOKING MIXTURE 7/- doz. POTTER'S CATARRH PASTILLES 11/- doz.



P.A.T.A. 1/3, 11/- Doz. Packed In & Doz.

Retail 1/6, Wholesale 14/- Doz. Packed in § Dos.



**POTTER** LARKE

60-64 ARTILLERY LANE, E.1

Phone: BIShopsgate 4761. Grams: Horehound, Phone, London

And at 77 DANTZIC ST., MANCHESTER, 4 Phone: BLAckfriars 8734 Grams: Horehound, Manchester

# Are you ready for NURONA's 5th year of popularity?



WHITE OR TAN 4 oz. size, 1/-

New Trade Price

(from May 1st) 7/6 per dozen

Bonus terms on application

Alse NURONA Sun. Tan OIL 4 oz. size, 1/-

Biggest Value in

-TANNING - PROTECTION

-BURN RELIEF

Nurona was the first "TRIPLE-PURPOSE" Sun-tan Cream. Made to a formula originally designed for sun-ray practitioners, its efficiency remains unsurpassed.

Nurona assists rapid tanning—it prevents sunburnt skin—it relieves painful sunburn. The price is as popular as the product, too. At 1/- a bottle it finds a ready sale.

**GET YOUR STOCK EARLY** 

JAMES WOOLLEY, SONS & CO., LTD., Victoria Bridge, MANCHESTER



# Hygienadenn

# SCIENTIFIC DENTAL PREPARATIONS

" HYGIENADENN "
PREPARATIONS
LONDON

Distributing Agents
Messrs. John Bell & Croyden
50 Wigmore St., W.1 (London)

## WE MAKE SHAVING BRUSHES FROM SUPERFINE BADGER TO PURE HOG

ASK YOUR WHOLE-SALER FOR THIS ATTRACTIVE DISPLAY STAND AND OUR KEEN PRICE CATALOGUE

OR WRITE DIRECT TO

## FORSTER

BRUSHES LTD.

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HATTON GARDEN
LONDON, E.C.1

'GRAMS : SUBRUSCO, SMITH, LONDON 'PHONE : CHANCERY 8631

CABLES: SUBRUSCO, LONDON ESTABLISHED 1840



# Eve's Five Point Plus

IS BRINGING IT THE GREATEST POPULARITY OF ANY SHAMPOO!



Three years of ever increasing public demand has established the popularity of Eve Shampoo Powder. Now comes a further increase in Eve users — because the same shampoo is also in CREAM form, in a handy 6d size, in an easy-to-use tube. The success of Eve Shampoo Cream and Powder is based on five sound reasons — the five big advantages which made Eve the first trouble-free soapless shampoo on the market.

DISPLAY AND RECOMMEND

Eve Shampoo

CREAM 6D
THREE SHAMPOOS

PER PACKET

-both hair and scalp—frees the hair from dandruff, with its attendant troubles; enables scalp pores to breathe, glands to func-tion normally.

## 3 EVE IS SAFE

—no harmful alkali, Mild, yet efficient, Eve cannot affect the structure of the most delicate hair, Doctors recommend Eve for hair. Do

## **4 EVE CLEANSES**

gently, yet quickly and thoroughly. No soap in Eve, therefore no unhealthy lime-scum.

## S EVE AIDS SETTING

—because it leaves no clogging deposits to make hair "difficult". More, Eve cleanses away all scalp waste and dandruff — makes hair manageable.

If you have not already seen the new book "Lovely Hair" by Pierre Auguste, send your trade card to Joseph Watson & Sons Ltd., Department W.4, Leeds. You will receive your copy by return post.

EVT 4-29A-100

JOSEPH WATSON & SONS LTD., LEEDS

This is the Season for



## THE ORIGINAL SOLID EAU DE COLOGNE

Advise your customers to include Frozoclone in their Holiday "Wants." They will find it a boon when travelling and most refreshing on all occasions.



Create new customers by displaying this excellent "Silent Salesman" -

Large Size Bottles 3s. 6d. - 28/- per doz. Small Size Bottles 2s. Od. - 16/- per doz. *IVORETTES 2s. 0d. - 16/- per doz.

*Specially designed for the Handbag.

Your profit on the large size Is. 2d. . . and on the small sizes 8d. P.A.T.A.

Another suggestion!

## Demuth's SOLID LAVENDER

in the same convenient solid form.

In beautiful Wedgwood Blue, frosted \int Large Size Bottles - 3/6 - 28/- per doz. bottles, with silver-plated caps. Small Size Bottles - 2/- - 16/- ,, ,,

## R. DEMUTH'S Laboratories

# Carnate

The Renowned Nail Polish

Produces a natural brilliant polish, Waterproof and Antiseptic

Prevents Brittleness and Nourishes the Nails

Retails 1s. 9d. Wholesale 14s. per doz. P. A. T. A.

Attractive showstand, as illustrated, free on application.



## **HARMOZAN**

## Pineneedle Extract Bath Squares . . . .

A high-class Bath Tablet containing a unique blend of Spa salts having powerful restorative properties, and the beneficial aroma of the finest Siberian Pineneedle Oil.

Large Size (12) retail 3/9d. Wholesale 30/- per doz. Small Size (6) ,, 2/-. ,, 16/- ,, ,,

## **MIRADOS**

A scientific preparation for the prevention and alleviation of mosquito and other insect bites.

It is rapidly absorbed into the skin, forming a protective film, and does not soil or stain the clothes.

Retail 1/3d. Wholesale 10/- per doz.

## **ANALAX**

## The Original fruity laxative in pastille form.

May be safely recommended for women and children.

DELICIOUS ·

EFFECTIVE · RELIABLE

Retail 2/3d. Wholesale 21/- per doz. st'pd.

SOLE MAKERS OF ALL MEDICINAL OILS IN TASTELESS, POWDER FORM, NAMELY RISICCOL (Castor Oil), CHAULMOOGRA, SANDALWOOD, etc., etc.

Bulk Quotations on Application.

68 SALUSBURY RD. & MONTROSE AVENUE, LONDON, N.W.6

TELEPHONE: MAIDA VALE 5340

of all description

### •IMPORTED DIRECT FROM THE SPONGE FISHERIES . .

SHIPMENTS can be MADE DIRECT from HYDRA, GREECE, to ANY PART OF THE WORLD

SPECIES OF SPONGES

(BLEACHED AND UNBLEACHED)

HONEYCOMB. TURKEY. ELEPHANT EARS. GRASS. YELLOW VELVET · WOOL · CARDED SPONGES (Honeycomb, Turkey and Grass)

## SPONIO"

(LOOFAH SPONGES) A BRITISH INVENTION (Pat. appl. No. 3982/36) INVIGORATOR''

"BATH SPONJO" consists of sterilized natural SEA SPONGES enclosed in a gauze envelope and covered with a layer of reinforced loofah. They have the cleansing properties of loofah with the added softness and resilience of the sponge. Does not hurt sensitive skin, is durable and does not become slimy...

Every buyer (Wholesale, Export and Retail Trade) should have our 24 pp. Buyers' Guide and illustrated priced cata-logue of Sponges. Post free on application.

## **SPONGE**

PAVEMENT, LONDON, E.C.2 FINSBURY

(NON-COMBINE)

Telegrams: Tsipis, Ave, London

BOX B I/- and 6 at I/6 BOX C

BOX A

Sold loose or boxed



BATH "SPONJO"





Trade Prices 21/per Box. Each Box contains 30 — I/-Packets of Blades and 30 Ivory Containers Free. Send in your order now.

Sold in packets of 4 for 1/-10 for 2/6

Sole Makers:-

SONS

THE EXTENSIVE PUBLICITY FOR

## LANALOL HAIR FOOD

in the National Press, covering millions of readers weekly, has created enormous interest

-LOOK TO *YOUR* STOCKS-

Lanalol is obtainable in two forms: No. I With Oil (yellow label), No. 2 Without Oil (green label), 2/6 per large bottle.

Chemists will profit by keeping Lanalol well to the front. This product is supplied on strictly P.A.T.A. terms from all Wholesale Houses.

LANALOL LTD.

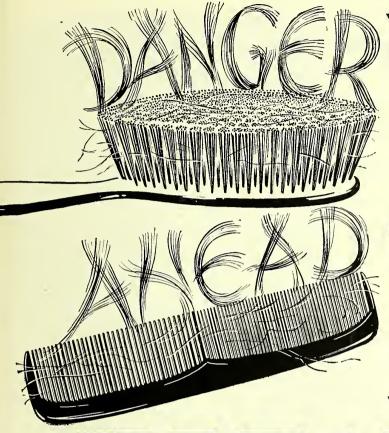
NEW

WARDONIA

BARREL HOLE BLADE

57-60 Holborn Viaduct, London, E.C.1





# Miss BUSINESS

By Not Keeping Regularly Stocked with the Fast Selling

# TOILET **PREPARATIONS**

BIG BUSINESS will come to those who regularly stock these regularly "asked for" lines. Order up a good stock NOW and thus make sure you will not disappoint customers in your locality.

## KEEN ADVERTISING

offering a direct appeal to the Public, is the Keynote of a Bold and Regular Campaign in the National and Periodical Press

New customers will be created — present business REACTIVATED!

Attractive Show Cards and full particulars are immediately obtainable on request to:

## EDWARDS HARLENE LTD.

20/26 Lamb's Conduit Street London, W.C.1

Keep a Good Stock of

HAIR GROWER

Cremex Shampoo Uzon Brilliantine Harlene Wave-setting Lotion Astol Hair Colour Restorer Harlene Camomile Golden Hair Wash | Harlene Scalp Ointment

Harlene Camomile Shampoo Harlene Golden Wave Set Harlene Hair Cream Harlene Soapless Shaving Cream

TONIC

# **Modern Dentures Need this** Modern Denture Brush



Addis No. 88 Modern Denture Brush is the very last word in denture brushes. It is not just a toothbrush adapted for cleansing dental plates, but a brush deliberately designed for the job.



The handle is very substantial and is cranked to enable the brush to reach the deepest part of any denture. On each side of the brush is a wing which will penetrate any interstice. The bristle is the finest possible quality, black and extra stiff. Interestingly packed in boxes of half-a-dozen, a small showcard provided with each box. This brush sells on sight.

RETAIL 2/- each PRICE 16/- per doz.

# ADDIS

BRUSH WORKS, HERTFORD

ESTD. 1780

MADE IN ENGLAND BY THE OLDEST FIRM OF TOOTHBRUSH MANUFACTURERS IN THE WORLD



We design and produce Cartons, Labels, Booklets, Catalogues, Folders and all other forms of Business Printing. Ideas and suggestions are prepared free and without the slightest obligation beyond your serious consideration of the proposals we submit.

THOMAS WAIDE & SONS LTD · PRINTERS · KIRKSTALL HILL · LEEDS

Waide's the Printers are pleased to be represented in this Special Number and also welcome this opportunity of thanking their numerous good friends for the loyal and continued support extended to them during the last twelve months

## SUCCESS

journalist recently declared. Taking such a point of view into consideration, the success of Guerlain seems fabulous.

Famous over a century ago for the superiority of its products, this firm's reputation has never once wavered despite wars and depressions.

Such a record is a guarantee that Guerlain soaps and perfumes sell. In the long run, there is no sales argument like continued high quality.



## A FEW OF CUSSONS' 6d. LINES



## CUSSONS SONS & CO. LTD.

KERSAL VALE, MANCHESTER

Fine Loap Makers and Manufacturing Perfumers

# SIMMER DISPIA

FOR READY SALES FEATURE

Evening in Paris

HEAVILY ADVERTISED AND ALWAYS IN GREAT DEMAND



**EVERYTHING FOR** THE HOLIDAY TOILET

BOURJOIS LTD., QUEENS WAY, CROYDON, SURREY. LONDON SHOWROOMS: 2-5 OLD BOND STREE F, LONDON, W.1



## A FAMOUS HOUSE

While Alfred, Count d'Orsay, remains the symbol of a period of elegance, luxury

and refinement, to day the house of d'Orsay is the symbol of quality and good taste, and its name evokes all the prestige of refined elegance down to the tiniest detail. Always to the fore where technique and fashion are concerned, this House respects nevertheless the traditions which made its renown. Each period of changing taste and tendencies in fashion and art is marked by a d'Orsay crea-

tion which by its presentation and its aromatic qualities is the admiration of all those interested in the perfumer's art.

La Rose d'Orsay, created at the beginning of the XXth century, was the perfume of Society for over fifteen years. Then, with the appearance of Modern Art, came

Le Dandy, a Perfume of Pedigree and elegance with its diamond-shaped flacon, it is one of the most beautiful objects to be seen in the perfumers' windows, and to it the most elegant women give their favour today.

And now, very soon, a new creation will upset all the present tendencies. Its undoubted personality will put it in the first rank, this perfume whose charm will captivate every woman: Belle

de Jour. Thus, all the d'Orsay products are placed under the sign of Elegance and Quality: to offer them to any women is to guarantee her gratitude, and the continuity of her custom.



D'Orsay, 17, rue de la Paix, Paris

54, GEORGE STREET (BAKER STREET), LONDON W. I

# HYPNOTICS



## [☆] SONERYL

The safe hypnotic

## [☆] SONALGIN

Analgesic for cases of severe pain

## **☆ THEOGARDENAL**

For high blood pressure

## **☆ GARDENAL&RUTONAL**

Anti-epileptics

★ TRADE MARK





Well known, dependable drugs in new dress

PHARMACEUTICAL SPECIALITIES (May & Baker) LTD.
DAGENHAM

# DISE



Into every Meggeson Product goes 140 years of experience in manufacturing fine pharmaceutical lines.

Nevertheless, every Meggeson Product is made to conform to modern standards and requirements.

Modern selling and advertising methods, too, make certain that Meggeson Pro-ducts sell and keep selling.

Study the typical examples of Meggeson Sales Aids pictured here. Make use of them. They have been designed and produced for YOU.

Remember too, that Meggesons are loyal to Pharmacy and have been for over 140 years true "Chemists'

Friends."

MEGGESON & CO. LTD., LONDON, S.E.16





# made with Turtle



## NOT ONLY CLEANS - IT CLEANSES!

Bronnley's 1:2:3 Soap is being advertised in the leading media and a variety of striking show material is available for display.

86/- per gross tablets.

Also available in Toilet size

43/- per gross tablets.

6d. per tablet retail.

In Gardenia, English Fern, Santal, Honeysuckle, Lavender and Verbena odours.

## REGULARLY ADVERTISED BRONNLEY'S LINES

SOAP

CARDENIA BRONNLEY

ESS VIOT

LTD ACTON VALE RONNLEY CO LONDON

C C



# "Put me on your counter," SAYS "TILLY"

"Mummy always says that if it hadn't been for the Curly Top Displayouter on our chemist's counter, I'd never have had Curly Hair.

"It reminded her of those advertisements she saw, and it even reminds her now when another tube is required."

Five million advertisements appear every week. Display a quarter dozen "outer" on your counter and make sure that you get all the sales you can.

★ ★ Curly Top trains children's hair to curl naturally.

Retails at 1/3 per tube.

★ ★ Vosemar makes ladies' hair wave naturally. Retails at 1/6 a tube.

* Curly Top Soapless
Shampoos—specially prepared for
children, making the hair soft, lustrous
and glossy. Enough for 12 Shampoos
—1/3 tube retail.

★ Vosemar Soapless Shampoo —removes scurf and dandruff, lathers copiously. No rinsing lotions needed. 1/3 tube retail—12 Shampoos.



# Vosemar Limited BURY, LANCASHIRE



"A STEADY SELLER"

# EUCRYL DENTIFRICES

Bought on Display
Terms Yield

PROFIT ON 43%

PROFIT ON 75% PRICE

TERMS ARE GOOD"



"THINK I'LL DISPLAY IT MORE"



EUCRYL
TOOTH POWDER
TOOTHPASTE
DENTURE POWDER

EUCRYL LTD. Manufacturing Chemists, SOUTHAMPTON

"Robinson's of Chesterfield" has been the hall-mark in Surgical Dressing of quality for close upon a century.

Ask us for samples of Dressings, packed in attractively printed Cartons bearing your name and address.

# SURGICAL DRESSINGS

PURE O REPRIED FOR USE

O SPECIAL SURGICAL DRESSING.

## **Specialities**

### " CELLOSENE '

(Cellulose Wadding B.P.C.) The original and best-

Also Manutacturers and Sole Proprietors of

## "GAMGEE" TISSUE

This Cotton Tissue is for the Dressing of Wounds, and the making of Splints and Moulds and Chest Protectors.

## CESTRA MASKS

FOR SURGEONS' AND NURSES' USE. For the prevention of Droplet Intection.

## " MEDILINTEX "

The Modern Poultice and Dressing.

## ABSORBENT COTTON LINTS, WOOL, GAUZES, ROLL BANDAGES,

Either plain or medicated with ANTISEPTICS according to the direction of Lord Lister.

## DRESSINGS—" B.P.C.," " N.H.I." & FIRST AID,

For Factory, Mines, Transport & A.R.P.

## CAPSICUM TISSUE & THERMAL WOOL.

## SANITARY TOWELS.

Mene, Su-can & Maternity Pads.

## ROBINSON & SONS LTD.

WHEAT BRIDGE MILLS, CHESTERFIELD

London Office and Warehouse: 168 OLD STREET, LONDON, E.C.1
Telephone: Clerkenwell 8461 (2 lines)

# DIXOR

Beauty Preparations







## CLEANSING COLD CREAM

Provides the most effective way in which the modern woman can remove dirt and old make-up, a way becoming increasingly popular. Dixor Cleansing Cold Cream is particularly efficient and pleasant In use, and neither enlarges the pores nor assists the growth of hair or down.

Tubes ... 6d. ... 4/- per doz. 6-oz Opal Pots 2/9 ... 21/-

# VELOUTY de DIXOR THE ORIGINAL COMBINED POWDER CREAM

	-			-			
Tubes	*No. I				4ੂ¹d.	3/-	per doz
	*No. 2				6d.	4/-	,,
	No. 3				1/-	7/-	,,
	No. 4				2 -	14/-	,,
	No. 5		• • •		3 -	22/-	,,
Pots	Handba	g (Unl	oreaka	ble)	1/3	10/-	,,
	Glass				2/9	21 -	**
	De Lux	e (Unb	reakal	ble)	4/ò	36/-	,,
	De Lux	e ( Unt	reakai	ole)	4/0	30/-	**

White, Ivory, Natural, Ochre and Soleil Doré (Sungold).

## NOURISHING SKIN FOOD

The Skin Food is one of the newest additions to the range of Dixor Beauty Preparations and embodies the most advanced principles of skin food preparation. It restores any deficiency of natural oils, keeping the skin supple and free from blemishes such as wrinkles and rough and dry patches.

Tubes ... 6d. ... 4/- per doz, 4-oz, Opal Pots 2/9 ... 21/- ,,









## DAY CREAM CREME DIXOR

A foundation cream in white only, Tubes

*Small ... 6d. ... 3/- per doz.

Medium ... 1/- ... 7/
Large ... 2/- ... 14/- ...

Super ... 3/- ... 22/- ...

Pots

Fancy Glass

or Opal 2/9 ... 21/- ...

De Luxe (un-breakable)4/6 ... 36/- ...

## IRADIUM de DIXOR

SKIN TONIC AND CLEANSER

Effectively removes old make-up and leaves the face refreshed.

Bottles
Handbag
Size ... 1'- ... 8'- per doz.
Small ... 2.6 ... 18'- ...
Large ... 5/6 ... 39'- ...

## DIXODOR DEODORANT

Checks excessive perspiration and prevents its offensive odour. Does not make the skin smart. Harmless to clothing.

Bottles ... 1/- ... 8/- per doz. Small Large

## EAU DIXOR

A LIQUID DEPILATORY

The most successful method for removing unwanted hair from the under-arms and legs.

Acts in one or two minutes according to the growth and texture of the hair to be removed.

Simple and clean to use.

Bottles Small ... 1/- ... 8/- per doz. Large ... 3/6 ... 27/- "

* Not less than
I doz. of each shade
supplied.

# SEND FOR ATTRACTIVE FREE SHOW MATERIAL

Minimum Retail and Wholesale prices P.A.T.A.

DIXOR Ltd., St. LEONARDS WORKS, MORTLAKE, S.W. 14

Stock
THE SEASON'S
BIGGEST

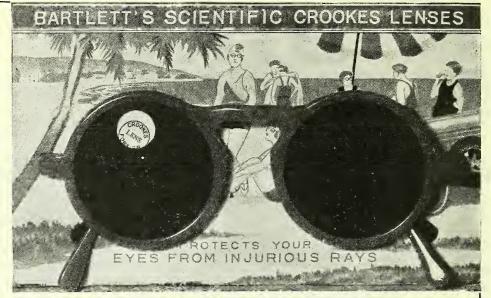
SELLER!!

BARTLETT'S

SCIENTIFIC

CROOKES

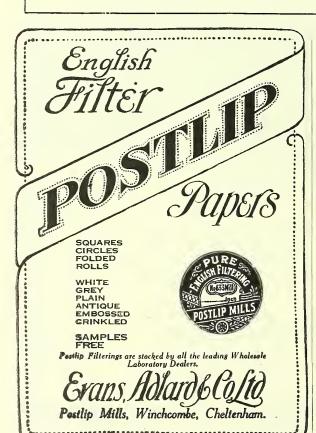
LENS



means business ORDER FROM YOUR USUAL WHOLESALER

If unobtainable, direct from

ALFRED FRANKS & BARTLETT CO., LTD. 36-37 HATTON GARDEN, LONDON, E.C.I





# YOU WILL BE ASKED FOR

The " MIS-DEFYING " GLASS POLISH

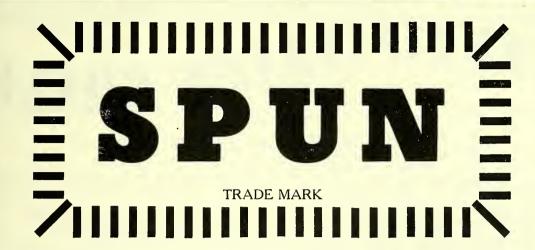
FOR EYEGLASSES . WINDSCREENS . GAS-MASKS DENTAL MOUTH MIRRORS, OPTICAL INSTRUMENTS, etc.

CLEANS, POLISHES AND PREVENTS MISTING OF GLASS UNDER ALL CONDITIONS IN UNIVERSAL DEMAND

Packed—12 attractive "easy-open" tins in elaborate "silent salesman" cartons to retail at 6d., 1/-, 1/6, and 2/6

See our Exhibit at the EMPIRE EXHIBITION STAND E152 Palace of Engineering PAMPHLETS AND SHOWCARDS AVAILABLE

Write or Call, please—
91 BOLLO BRIDGE ROAD, ACTON, LONDON, W.3



A FAMOUS NAME

**FOR** 

# OINTMENTS AND CREAMS

BULK OR PACKED — EXPORT — SPECIAL FORMULÆ

VANISHING CREAMS
(SHINY OR NON-SHINY)
FOUNDATION CREAM
COLD CREAMS
CLEANSING CREAMS

COMPLEXION MILKS
SKIN LOTIONS
SKIN TONICS
LIP STICKS
FACE POWDERS

HORMONE CREAMS
TURTLE OIL CREAMS
AVOCADO OIL CREAMS
MASSAGE CREAMS
LEMON CREAM

UNPERFUMED FOR CHEMISTS' OWN PREPARATIONS, OR PERFUMED

TO STANDARD, OR AS REQUIRED

**AND** 

ALL REQUIREMENTS OF THE PHARMACIST

BULK OR PACKED DRUGS, ETC.

## ROBERT BLACKIE

Telegrams:
"USHENSPUNA
LONDON."

SHEN WORKS MELON ROAD, PECKHAM LONDON, S.E. 15

Telephones: RODNEY 3874 Private Exchange Lightest, Medium, Dense, for Tooth Pastes and Tooth Powder; and other Grades for every

PITATED purpose (Calc. Carb. Præcip.)

Also Finest Powdered Talc and other Chalks

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Estab. 1868. Telephone: Mansion House 7300. 

Telegrams: LEVERMORE, PHONE, LONDON.

Code: "ABC 6th Edition."



STRENGTHS IN STOCK. PROMPT DELIVERIES IN CASKS, DRUMS, OR BY TANK LORRY.

Send your enquiries to :-

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TELEPHONE: ADVANCE 3210.

TELEGRAMS: "METHSPIRIT, LONDON."

## CHEMISTS DRUGGISTS

are generally agreed that it is the quality merchandise that produces the turnover, the profits and the satisfied customers.

Antiphlogistine Brand Dressing is a good example of a quality product. Backed by ethical advertising, secure in the goodwill of the physician, it assures a steady profit to the pharmacist.

FEATURE IT—IT IS A GOOD TRADE BUILDER

# ANTIPHLOGISTI

BRAND DRESSING

**FOR** 

**SPRAINS** BURNS AND SCALDS EXTERNAL POISONING SWOLLEN GLANDS

STRAINS WOUNDS BOILS BITES

Write for special quantity terms.

MFG. CO., CHEMICAL

12 CARLISLE ROAD, LONDON, N.W.9

TELEPHONE: COLINDALE 6701

# **BURROUGH'S**

TRY OUR EXTRA RECTIFIED

FOR YOUR PERFUMERY

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FOR YOUR TINCTURES

ABSOLUTE

DUTY PAID
and
DUTY FREE
for
EXPORT
and
SCIENTIFIC
PURPOSES.

"BEEFEATER" GIN—THE PUREST AND BEST.

"WHITE CROSS" WHISKY, BRANDY and RUM

"Quinta Real" Elegant Old Tawny Port.

Burrough's Invalid Port.

Ports for Medicating Purposes.

"Donzardo" Sherry — Delicate
Pale Dry.

British Sherry.

Lime Juice Cordial.

"Bourg Frères" Champagne, in Botts., ½-Botts., and ¼-Botts.

Orange Wine.

Orange Quinine Wine.

"Bell Bird" Australian Wines.

Lemon, Orange and Grape Squashes.

British Ruby, Tawny and White Port Style Wines

Write for Samples and Quotations stating if you hold a Wine Licence.

JAMES BURROUGH Ltd.

Telegrams: " Burrocale, Phone, London."

Estab. at Chelsea 1820.

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**MANOIDS** 

**NEVROIDS** 

URICURE TABLETS

All 1/3 lines, costing 7/6 dozen. Showing 50% profit. Sell steadily and always give satisfaction. Any quantity carriage paid.

ONLY SUPPLIED TO QUALIFIED CHEMISTS

The Acton Pill and Tablet Co. Ltd., ASH VALE, SURREY

'Grams: CRODA, GOOLE.

'Phone: RAWCLIFFE 40 & 41

# CRODA.

LIMITED=

CRODA WORKS, RAWCLIFFE BRIDGE, GOOLE, YORKS.

- LANOLINE B.P. and U.S.P.
- ANHYDROUS & HYDROUS.
- BULK and PACKED.
- **●** LANOLINE—Commercial.
- LANOLINE—Soap Making.
- **ABSORPTION BASE.**
- WOOL WAX.
- CHOLESTERIN.
- STEARIC ACID.
- WOOL FATS.
- —Also manufacturers of the wellknown CRODOL Ointment.

Samples and prices on application.

Also at

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And other Branches.

PETROLEUM JELLIES



## PURFINOL LTD.

BRETTENHAM HOUSE, LANCASTER PLACE, STRAND, LONDON, W.C.2

Telephone: Temple Bar 1318 & 1319 Cables:
"Invatore, Rand, London"



These new Displays are NOW READY 'ASPRO' newspaper advertising continues on the same vast scale, winter and summer. 'ASPRO' broadsheets reach every house in every town of the British Isles. 'ASPRO' displays are available for every pharmacist in the land.

All this expertly organised, concentrated publicity effort is out to achieve two objects: to make new customers FOR YOU and to keep old customers. When a service like this is at work you get the full benefit. But only



## IF YOU DISPLAY ASPRO' ADVERTISING MATERIAL ALL THE TIME



'ASPRO' displays make every inch of window-space they occupy pay thousands per cent in sales because they bring into your shop members of the vast 'ASPRO'-using public, potential customers for your other lines as well. Remember—





ASPRO

"ASPRO" consists of the purest Acetylsalicylic Acid that has ever been known to medical Science, and its claims are based on its superiority. Made in England by ASPRO LIMITED, Telephone: Slough 608. SLOUGH, BUCKS.

No proprietary right is claimed in the method of manufacture or the formula.

## HARKNESS, BEAUMONT & CO. LTD.

Wholesale Manufacturing Chemists

IUNCTION BRIDGE CHEMICAL WORKS

LEITH EDINBURGH

Manufacturers of Pharmaceutical Preparations, Chemists' Packed Goods. Malt Products and Veterinary Specialities.

## On the C.F. List

Lactomaltine, Strenthol, Bonum Malts, Sunray Malts, Golden Grain Malts, Sunray and Lorna Olive Oils, Bonum-Tone, Salutrine Spa Salts, H.B. Special Cascara, etc.

Wholesale Only

Throat Pastilles & Throat Tablets

are being extensively advertised as a preventive against Colds and Influenza. Do not disappoint your customer by being out of stock. The Pastilles are put up in attractive tins at 6d. each; Throat Tablets in 6d. tubes and 1/- bottles. Usual trade discounts

The Iglodine Co., Ltd., Newcastle-on-Tyne



## Wholesale Prices

1/3 Size 11/6 per dozen net

3/- Size 27/6 per dozen net

Carriage Paid Gross Quantities

J. F. WHITE & CO., LTD., Chemists BENSON STREET, LEEDS 7

Counter Bills free on application



DISINFECTANT · White and Black

(All RIDEAL-WALKER co-efficients)

"NOPEST" INSECTICIDES

HORTICULTURAL Preparations "EQUINOINT" Veterinary Ointment

Also manufacturers of LYSOL · DISINFECTANT POWDERS · etc.

(DISINFECTANTS) LTD.

TELEPHONES : BIRTLEY 14 : TELEGRAMS : "DISINFECT" : BIRTLEY : BIRTLEY · Co · DURHAM

# PLA STERS

Mather's Zinc Oxide Adhesive Plaister is a quality product with a universal reputation.

The Medical Profession and the general public appreciate the new patent handy spool which ensures a perfect plaister whenever required. Handy to use and neat in appearance it is worthy of your recommendation, because it is a popular favourite wherever introduced, and it shows good profits.



There is a much larger trade to be done in Porous Plaisters than is already imagined. The secret is an attractive display. Our new registered Display Box is undoubtedly the last word in Plaister containers. It sells them with the greatest of ease. Put a box on your counter and watch how quickly they sell. We manufacture every variety of porous plaister and pack them all in this style of container. Your wholesaler stocks them.

" WILMATH "
ELASTIC BANDAGES
are unsurpassed.

ASK FOR SAMPLES AND PRICES



This is one of our most successful lines. The colourful display card is a real silent salesman. The pack is definitely attractive. You can order from your usual wholesaler or ask us for full details.

A sample tin will gladly be sent on application.



# WILLIAM MATHER LTD

DYER STREET, MANCHESTER 15, ENGLAND

Telephone: Blackfriars 6168
Telegrams: "BALSAMIC" Manchester



June 25, 1938

# The Malt that ca







70





Extract





JEFFREYS, MILLER &





CO. LTD

The superior quality of these malt products is worthy of your careful consideration.

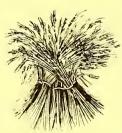
This 'trouble - free' malt extract gives satisfaction both to buyer and seller. Dignified and attractive packing, super-quality product, and keenly interesting prices are points worth noting-and investigating.

Excellent show material is available which will quickly stimulate sales.



A unique assortment of beautiful labels is yours for the asking, together with samples and prices.

Enquiries are invited for bulk supplies. Special quotations are available for Hospitals and Institutions.



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MALTUM, WIGAN

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We invite your enquiries. Samples and prices gladly sent on request. List of

request. List of Technical Products on application.

We are actual manufacturers and can offer prompt delivery of, and keenest prices for

# YPOSULPHITE OF SODA **JULPHITE OF SOD**

- **B.P. PRECIPITATED SULPHUR** •
- B.P. EPSOM SALTS . ACCUMULATOR ACID .
- B.P. GLAUBER SALTS .
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TECHNICAL QUALITIES

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'Phone: Padiham 290-1

# MAWDSLEYS for Sundries



To an ever-increasing number of pharmacists the words "Mawdsleys" and "Sundries" are

These pharmacists buy their sundries not haphazard but regularly because they realize that Sundries offer them the one sure way of regularly increasing turnover.

They know too, that "Mawdsleys Sundries" are the "right lines at the right price" and that every assistance in the way of "service" and "display" is given to assist them to attract and increase sales.

Rely on "Mawdsleys Sundries". Write for illustrated list to-day.



SUN GLASSES

CROOKES LENSE

From 3/- per

Of woos

4/6 doz.

est quality at a popular ice. Attractive free play cards holding lozen bags of different

From 4/- doz.

LAINLIN

MANCHESTER RIGA ST. •



in casks, carboys and demijohns.

Special terms for contracts. Delivery as required

# J. C. ARNFIELD & SONS LTD

GADSBY WORKS, PRINCES ST., STOCKPORT

WHOLESALE AND EXPORT DRUGGISTS

ESTABLISHED 1786

# THREE PROCESS

THREE MACHINES
THREE TIME UNITS
THREE LABOUR UNITS
THREE SPACE UNITS

# 1/2 GARDNER

Patent 'RAPID' combined

SIFTER &
MIXER
with
SPRAYER

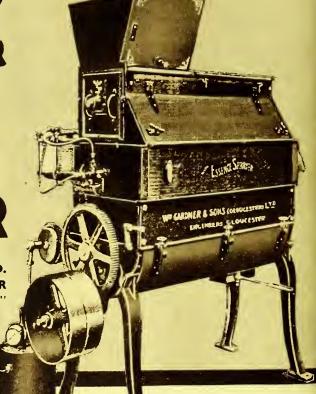
WM. GARDNER & SONS (GLOUCESTER) LTD. BRISTOL ROAD, GLOUCESTER

Telephone: 2288

Telegrams: "Gardner, Gloucester."

London:

19, Grays Inn Chambers, 20, High Holborn, W.C.1
Telephone: Chancery 7347



one machine but .. one third the time one third of the attention one third of the floor space less power and hetter products



For fine-textured, pure powders, perfectly mixed and liquid flavourings, colourings or perfumes blended - in. perfectly

# GARDNER

Combined Patent Quick Change

POWDER

Patent 'RAPID'

XER & PRAYE



of Printing



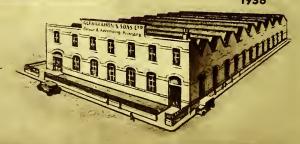
1878

Special study of Chemists'
Printing over this long period
has enabled us to build up
a reputation for quality
and service second to
none. . . .

LABELS, CARTONS, FOLDERS, BOOKLETS—in fact everything you need printed for Drug and Optical Departments we can supply.

Avail yourself of our service, send us your enquiries, improve your printing and save money. Samples on request.

* Complete set of samples sent to Colonies on receipt of postal order 10/- which will be credited on £5 order. ....





EST. 1878

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CHEMISTS' AND ADVERTISING PRINTER
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In Bulk, Tablets, Ampoules or Powder -



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#### SHARP & DOHME Ltd.

Mulford Biological Laboratories

B.F.I. Mulford Glycerophosphates Comp. (No Sugar) S. & D.

Lapactic Pills "Phedros"

"Serobacterin" Vaccines

Serums

Solution S.T. 37 S.T. 37 "Sucrets"

"Somnos

" Vaginoids "

"Caprokol"

"Hexyltan" Jelly and Solution "Propadrin" Hydrochloride

Syrup "Sedamyn"

Nazeptic Wool

Hexylresorcinol "Crystoids"

" Pabutole

"Topagene" Pertussis Bacterial Antigen

"Vacagen" Respiratory Mixed Vaccine (oral administration)

See Buyers Guide

76-78 CITY ROAD, LONDON, E.C.1

Telegrams: Antigen, Finsquare, London Telephone: Clerkenwell 7661

PERSONAL RECOMMENDATION HAS MADE THIS LINE!

AURUM AMBROSIUM

Are you stocking-

FOR ALL FORMS OF RHEUMATISM

Not just another rheumatism 'cure' but an entirely different idea in treatment that has brought forth thousands of spontaneous letters of thanks. Profitable—a steady repeater—cannot deteriorate in stock—a line you ought to stock.

Retail price 3/- per jar, wholesale terms in singles 30'-per dozen, in dozens 27/- per dozen post free, less 2½% monthly account. Special terms to wholesalers for quantities.

AURUM AMBROSIUM LTD., 98 Church St., BLACKPOOL

Tel - 1906

#### TURTLE OIL

Hydrogenated, also refined

# AVOCADO PEAR OIL

#### TI-TREE OIL

Germicidal and non-toxic

#### PILCHARDENE

Replaces Cod Liver Oil, guaranteed to contain 100 Intl. Units Vitamin D per gram. 800 Intl. Units Vitamin A per gram.

#### MORELAND

4 LLOYD'S AVENUE, E.C.3 'Phone: ROYal 5467

MOST EFFECTIVE

QUICKEST IN ACTION

REASONABLE IN PRICE

This amusing Bateman cartoon as a coloured showcard and a smart display cut-out will gladly be sent upon request together with particulars of a special bonus parcel. 'Navigan,' a scientific antispasmodic sedative, retails in bottles of 25 and 100 tablets at 3/- and 10/- P.A.T.A. 33\frac{1}{3}\frac{1}{9}\text{ profit on small size.} Write now to Roche Products Ltd. (Dept. C.D.3), 47 Bowes Road, London, N.13. Tablets 3/- & 10/- P.A.T.A. Suppositories 3/-.

# NAVIGAR

TRAVEL SICKNESS REMEDY

A ROCHE PRODUCT







Of quality, tested in our laboratories for conformity to Pharmacopoeias, and examined by our experts for taste, clarity and colour, yet despite the fact QUALITY is our main consideration, our prices will not only be found exceptionally keen, but below those of competition. Samples and prices for prompt or forward delivery

# CRODA LTD.

RAWCLIFFE BRIDGE, GOOLE
Grams: CRODA GOOLE
Phone: RAWCLIFFE 40 & 41

BURNLEY HOUSE, WILLESDEN, LONDON Phone: GLADSTONE 0731

INCREASE YOUR

# ROZALEX

SALES

By Displaying this new Attractive Counter
Display of 1 dozen 6d. Tubes



Display Cards and Cartons of 1 doz. 6d. Tubes
Display Cartons of 1 doz. 1/- Tubes
Aluminium Containers 2/6
Discount 33\frac{3}{3}\%

From wholesaler or direct

Show matter and literature supplied on request to ROZALEX LTD., Yorkshire House, Cross St., Manchester

# RAIMES, CLARK & CO., Ltd.

# Drugs, Chemicals, Galenicals Malt Extract, Gelatine Capsules

Manufacturers of Potassium Iodide, Resublimed Iodine and Iodine Preparations

Proprietors and Manufacturers of

#### MACLEAN'S REVALENTA

The Perfect Food for Children, Adults and Invalids.

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Telegrams: "Raimes, Edinburgh."

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GALE, BAISS & CO., LTD.

Wholesale Druggists and Manufacturing Chemists
— Druggists' Sundries and Surgical Appliances —

DRUGS
PHARMACEUTICAL PREPARATIONS
SUNDRIES
PACKED GOODS

HOME and EXPORT

In addition to a large and extensive stock of Drugs, Chemicals and Pharmaceutical preparations, we are rapidly coming to the fore as the House for Packed Goods. Give us your enquiries, we may have a design or label to suit you. Your own proprietaries prepared and packed under a guarantee of confidence and fidelity to formulæ. Printing own particulars on minimum agreed quantities.

PROMPT DELIVERY

Send for samples and prices to:

GALE, BAISS & CO., LTD., LONDON, S.E.15

Telephone: NEW CROSS 0094

Telegrams: DREADNOUGHT, PECK, LONDON



# unlimited in variety

Plain and decorated Tin Boxes Canisters · Screw Caps · Etc. Decorated and lacquered Tinplates Tinplate Showcards · Shelf Strips

> Perfect Products Keenest Prices Let us Quote You!

# TIN BOXES LIMITED

LIVERPOOL BUILDINGS, THORNTON ST.

WEST

HARTLEPOOL

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WHICHEVER YOU NEED SMALL OR LARGE SIMPLE OR ELABORATE FEW OR MANY

WE ARE ALWAYS WITH PLEASURE AT YOUR SERVICE

# JAMES TOWNSEND & SONS Chemists' Printers,

EXETER

London Office: 29, FARRINGDON STREET, E.C.4

# SIXTEEN YEARS YOUNG

1922

1938

We are celebrating on the 24th June, the Sixteenth Birthday of our house and we take this opportunity of thanking those friends who, knowing our age and Birth date, have sent their kind wishes.

We must, of course, give due acknowledgment and thanks to our customers for the major part they have played in the sustained advancement and growth of our organisation.

We trust that they have found satisfying compensation in the extra profits they have gained through our efforts.

Our success has been due, in the large degree, to the personal contact the directors maintain with our customers, and we are proud to be independent of any combine and of the fact that we have resisted the temptation of selling our Company to the General Public.

The occasion must not pass without our expressing our gratitude to our enthusiastic and loyal staff.



# McClure, Young MANUFACTURING CHEMISTS

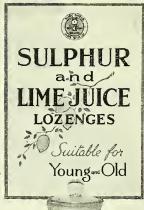
PREMIER PACKED DRUG HOUSE

90 STANDARD ROAD, PARK ROYAL, LONDON, N.W.10



CARTONS WINDOW DISPLAY and SHOW JAR









Thos. Guest & Co. Ltd. CARRUTHERS STREET **ANCOATS** MANCHESTER



SAMPLE AND PRICE ON REQUEST



PARAMOUNT FOR PURITY THAT

PARAMOUNT PRODUCTS LTD., Britannia House, BRADFORD. Tel.: Bradford 6958

EACH STICK CELLOPHANE WRAPPED "CRITELLI" LIQUORICE JUICE 1 oz. and 2 oz. Write for samples and prices to:

C.A. CRITCHLEY & CO. LTD., Manufacturing Chemists. BLACKBURN

## IODINE

(MOLSON BRAND)

Obtainable from the usual wholesalers or the makers

MOLSON IONIZED IODINE CO. Ltd. 34 C, GABRIEL'S HILL, MAIDSTONE

patients Do some require where in packets of 12 for 6d. and upwards. Quantity per do.

Every Simpkins Hailbut Liver Oil Hexagon contains Hailbut Liver Oil supplied by the Crookes laboratories yielding 1,000 international units Vitamin A and 40 international units Vitamin D.

SimpkinS

HALIBUT LIVER OIL HEXAGONS

tity per dose

advertisement This consistently appearing in Sold by qualified all the Medical Journals

> These delicious confections with the 100% Glucose with Dextrose base are available in 6d. packets containing 6 doses, also in 1/- packets, 2/- to 6/- bottles, and loose at 1/- per gtr.

> A. L. Simpkin & Co. Ltd., (Dept. C.D.), Barley Sugar Works, SHEFFIELD, 6.

THE ASTHMA TABLET WHICH COMMANDS THE

# LARGEST SALE

IT IS THE MOST EFFECTIVE
TABLET SPECIFIC FOR ASTHMA
IN THE WORLD,
THE DEMAND FOR WHICH
CONTINUOUSLY INCREASES
BECAUSE MILLIONS OF ADVERTISEMENTS
APPEAR EVERY MONTH IN
THE NATIONAL PRESS



PROFITS AND PRESTIGE
SHOW AND RECOMMEND DO-DO

P.A.

T.A.

## PREVENTION IS BETTER THAN CURE



ATOMIZER No. IS
This well-known nose and throat
Atomizer sprays oil or aqueous solutions with equal ease. Adjustable
tip permits spraying in any direction.

ATLAS ATOMIZER No. 20 A compact and dependable nasal Atomizer producing a medium spray from either oil or water solutions. Every home needs one or more DeVilbiss Atomizers. DeVilbiss Atomizers have been used and prescribed by the medical profession for more than 45 years, and to-day the DeVilbiss range includes improved Atomizers of every required type. DeVilbiss Atomizers are reasonably priced, fully guaranteed and carry handsome profits. Conspicuously displayed, they stimulate the sale of medical and antiseptic solutions—and sell themselves.

Price list on application





DeVILBISS
NEBULIZER No. 45
For oils only. Produces a large volume of extra dry vapour for deep inhalation.



ATLAS ATOMIZER No. 25
A nose and throat Atomizer of high quality for oil or water solutions. Gives a fine, continuous spray.

AEROGRAPH CO., LTD., 43, HOLBORN VIADUCT, LONDON, E.C.1

CVS-93



# 'THE PUBLIC PREFERS PARAMOUNT'

PARAMOUNT PRODUCTS LIMITED Enquiries to Britannia House, BRADFORD. Tel. BRADFORD 6958

## LUCOZADE NUTRIENT FOOD BEVERAGE

APPROVED by MEDICAL & PUBLIC OPINION

The Public demand is insistent, is productive of P.A.T.A. Protected profit, and is not substitutive of other lines you already sell. All London and Provincial wholesalers carry stocks and can meet demand promptly.

W. OWEN & SON 151 BARRAS BRIDGE, NEWCASTLE-on-Tyne

81

16

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2

2

## DOLS' VOLATALISE FLANNEL

-means all-the-year-round customers for you . . .

Almost every user recommends it to other sufferers.

It is indicated in cases of:

RHEUMATISM • NEURITIS SCIATICA • LUMBAGO

Etc.

★ Your customers will appreciate your recommendation. Ask us for literature, measurement forms, etc.

DOLS' VOLATALISE FLANNEL LIMITED VIADUCT STREET . HUDDERSFIELD

#### DOLS. AOI ATALISE LIANNEL SOX

Retail at I/- per pair. Steadily increasing sales year by year are an indication of their worth. They are packed in neat display outers, and command a ready sale. Customers come again and again for these Sox. Why not order a trial supply?

# Albolene SOLID

Bought by Millions and used by Hospitals throughout America

A MCKESSON & ROBBINS
PRODUCT NEW TO THE
ENGLISH MARKET



ACTUAL SIZE

93 Grams

16/- doz. Boudoir jar, retail 2/-32/- doz. 1 lb. tins, professional size, retail 4/-

#### McKESSON & ROBBINS Ltd.

EAGLE HOUSE, CANNON STREET, E.C.4.

Telephone Man, 1751

Associated with McKESSON & ROBBINS INC., Bridgeport, Conn., U.S.A. Purity, quality, safety and efficiency are the factors most rigorously demanded in all products prescribed by Doctors and used in Hospitals. In all these vital particulars, Albolene has satisfied the most exacting medical standards of America—and is consequently used in enormous quantities by institutions and individuals.

A skin-cleanser of *absolute* purity, odourless and moderate in price, Albolene enjoyed its primary demand for use on the delicate skins of new-born infants. But a product so pure and good has rapidly established itself as the ideal skin-cleanser and massage emollient for grown-ups.

Demand for Albolene in England is already steady—and is steadily increasing! The confidence of the manufacturers isstrongly evidenced in the preliminary advertising which is now appearing in the leading women's papers! From your wholesaler—or direct.

# GALOX

THE Oxygen TOOTH POWDER



The super-cleansing qualities of CALOX hold every first-user's loyalty-for life!

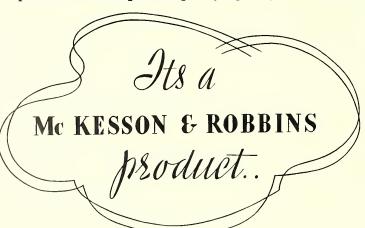
The effectiveness of CALOX for counteracting every condition of teeth-decay, teeth-discolouration, and neutralizing mouth acidity, is proved by the steadily increasing demand. Sales are ascending throughout the United Kingdom. Wide-spread advertising is in continual support! Be sure your stocks of CALOX are always adequate! Order to-day from your wholesaler—or direct. Buy on bonus terms (13 to the dozen). Small attractive displays available.

# SHAV-AMI

# Brushless shaving cream

The popularity of "brushless" shaving is now finally established. Shav-ami, entering the English market on the "crest of the wave of demand," is destined to repeat the phenomenal sales-records achieved in America.

A product of exceptional purity, quality and outstanding value, Shav-ami is a worthy,

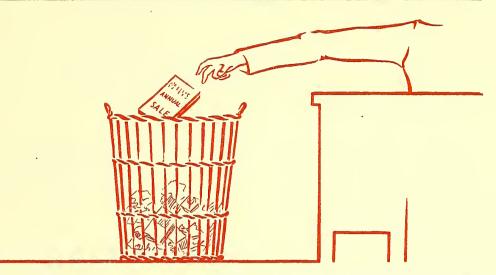


profit - making line for an introduction to which *your* customers will be genuinely grateful! From your wholesaler.

12/- nett. dozen, retail 1/6

McKesson & Robbins Ltd.

Eagle House, Cannon Street, London, E.C.4.



# HOW MANY OF YOUR CATALOGUES SUFFER THIS FATE?

By each post literature of every sort pours into the modern business house. Most of it goes straight into the waste paper basket after a casual glance. Only a few survive owing to their quality; their originality, which intrigues and satisfies. It is the pride of a good Printing House to achieve this for their customers. Printers are many, but it is only the few that can by their service give what every firm needs, catalogues and brochures whose make-up compels the consumer's interest

GOOD PRINTING COMBINES MANY DIFFERENT FACTORS







EYRE AND SPOTTISWOODE LTD.

His Majesty's Printers
EAST HARDING STREET
LONDON, E.C.4

LAYOUT
TYPEFACE
PAPER
COLOUR
INK
BLOCKS

ALL THESE WELL USED ASSURE SUCCESS

The

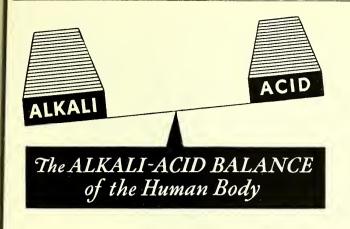
### EYRE AND SPOTTISWOODE LIMITED

are known all over the world for the quality of their printing. Besides the production of many weekly and monthly periodicals, they specialize in catalogues and brochures of every description. This reputation has been earned by 170 years of experience, from the reign of H.M. King George III to that of H.M. King George VI

## EYRE AND SPOTTISWOODE LIMITED

HIS MAJESTY'S PRINTERS • EAST HARDING STREET • LONDON E.C.4

TELEPHONE: CENTRAL 5831



This is the Vital Factor of Health

The Symbol above and the drawing alongside illustrate the keynote of the new ENO advertising — BALANCED HEALTH

Based on the physiological facts concerning the acid and alkaline constituents of the human body, this advertising will quickly create new sales for ENO. Its straightforward, logical argument and arrestingly different presentation carry conviction.

Frequent large space announcements in National and important provincial newspapers and periodicals will regularly bring the new message to the notice of over 12,500,000 readers.

#### BONUS OFFER

To coincide with the introduction of the new advertising campaign a bonus offer is in operation for a limited period. If you have not received particulars write now for details of advantageous terms to

J. C. ENO LTD., 160 Piccadilly, London, W.1



ENO'S "FRUIT SALT"
FOR BALANCED HEALTH

# ENDRINE HAY FEVER BONUS



Hay Fever is sweeping the country. Take extra profit from this lucrative business by ordering 'ENDRINE' from your wholesaler on 13 to 12 display bonus terms ... John Wyeth & Brother Ltd., 25 Oldhill Place, London, N.16

#### "... some YEAST TABLETS please"

When your customers ask this the answer is YESTAMIN—the purest form of yeast you can offer at a price your customers can afford to pay YESTAMIN is yeast freed from ferment, and is not a yeast compound.

Regular advertising in the big national newspapers is telling the public about YESTAMIN. There's business in it for you. Note the low price for a high-class product. 40 tablets for 6d., 100 tablets for 1/-, 225 for 2/- packed in handy metal boxes.



Details and terms from THE ENGLISH GRAINS CO., LTD., Burton-on-Trent

# Bridge the Gap between Producer and Buyer

WITH

# ETT & JOHNSON L'D SOUTH AFRICA

**HEADOUARTERS · CAPE TOWN BRANCHES & DEPOTS** JOHANNESBURG · DURBAN AND NOW BULAWAYO

SPECIALISTS IN THE MARKETING

PROPRIETARIES: BRANDED GOODS, PHARMACEUTICAL PREPARATIONS. **TOILET REQUISITES** 

LET AN EXPERIENCED ORGANIZATION SOLVE YOUR DISTRIBUTION PROBLEMS

SIMILAR FACILITIES ARE AT YOUR DISPOSAL IN THE HOME MARKET **AUSTRALIA·NEW ZEALAND** INDIA · ECYPT & THE CONTINENT

**HEAD OFFICE** 86, CLERKENWELL ROAD, LONDON. E.C.I.

# 'DETTOL' and the doctors

In large hospitals and in private practice the use of 'Dettol' is ever increasing. This approval by doctors is based on the high germicidal efficiency and great convenience of 'Dettol.' Its efficiency is maintained in the presence of blood and other organic matter. 'Dettol' can be used without discomfort, staining or danger at far greater strengths than carbolic or cresylic antiseptics.

'Dettol' is a clean, clear, non-poisonous fluid with a distinctly pleasant odour.

'Dettol' is packed in attractive bottles. It sells at a reasonable price. 4 oz. size 1/-, 8 oz. size 1/9, 16 oz. size 3/-. Larger sizes for medical and hospital use.



REGETT AND SONS, LTD. (PHARMACEUTICAL DEPT.) HULL.
LONDON: 40, BEDFORD SQUARE, W.C.I

# A GENEROUS BONUS

FOR WINDOW DISPLAY

—and increased discounts generally, are now offered on Adiposettes — The Safe and Harmless Slimming Treatment —entirely free from Thyroid Extract.

Adiposettes are extensively prescribed by the Medical Profession, are entirely harmless and contain only pure vegetable substances.

Write today for full details of this profit earning offer.



# Now is the time to make A SPECIAL DISPLAY OF DINNEFORD'S

Pure Fluid MAGNESIA



Although DINNEFORD'S should be in every home at all times, chemists are well aware that the demand goes up suddenly every Summer, and especially as the holiday season progresses. Make the most of this. Remind mothers to be sure and have DINNEFORD'S by them. It has saved many a mother's holiday from being spoiled by the fretfulness that so often follows a change of air.

# DINNEFORD'S Pure Fluid MAGNESIA

FAMOUS FOR OVER 100 YEARS

Made only by:

DINNEFORD & CO. LTD., 12 CLIPSTONE ST., LONDON, W.1.

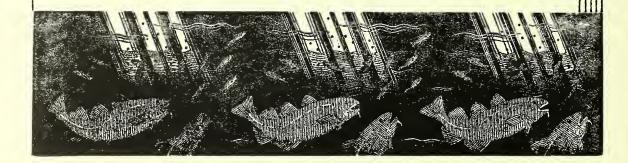


## NORWEGIAN COD LIVER OIL



There is no efficient substitute for Norwegian Cod Liver Oil.

Take the direct road to Nature's fount of health, Norwegian Cod Liver Oil; you will then be on safe ground. Always ask for Norwegian Cod Liver Oil.



ESTABLISHED 1793.

The Best and Safest Infants' Medicine of over 140 years' standing.

ATKINSONEBARKER'S INFANTS' PRESERVATIVE Does not contain any Scheduled Poison.

ROBERT BARKER & SON, LTD., 13 WESLEY STREET, C. on M., MANCHESTER

#### The DISTILLERS COMPANY LTD 12 TORPHICHEN ST. **EDINBURGH** Produced from the celebrated D.C.L. pure culture Yeasts. The United Yeast For fermentation or baking. For medicinal use Company Ltd. IN BOTTLES OR BULK Live or fermenting. Silent or nonground powder. LONDON BRISTOL fermenting. A kindred product to the world renowned D.C.L , Malt Extract. BIRMINGHAM MANCHESTER LEEDS Write for Samples & Prices NEWCASTLE -

#### NUTRITION FOR ALL

# CASUMEN

(REGD.)

More and more people are recognising that the rate at which we live demands some special sustenance to repair wear and tear.

Modern science has made many attempts to provide that extra nourishment in easily assimilable form, and would seem to have achieved its greatest triumph in this respect in the production of Casumen.

By a special process, Casumen gives the very essence of milk, the universal natural food. In it are all the body-building elements of rich English pasture milk with carbon, nitrogen, sulphur, hydrogen, oxygen and phosphorus—i.e., in highly concentrated form the elements to rebuild muscle, nerve and tissue and to enrich the blood. Casumen has been the subject of innumerable analyses, reports and testimonials.

Blended by Prideaux with Chocolate and Full Cream Dried Milk, Casumen makes a most delicious and easily prepared breakfast beverage or nightcap, readily building up and maintaining energy and vitality.

Analysis shows it to contain:-

Moisture				•••	 	 • • • •	5.4
Milk Sugar		•••			 	 	13.5
Cane Sugar					 •••	 	16.2
Cocoa Carbol	hydrat	e, etc.			 	 	6.7
Fat		•••		• • •	 	 	18.5
Ash			•••		 	 	3.4
PROTEINS					 	 	35.3

When it is remembered that without protein life cannot exist, the high value of this remarkable preparation will quickly be apparent.

## CASUMEN CHOCOLATE MILK

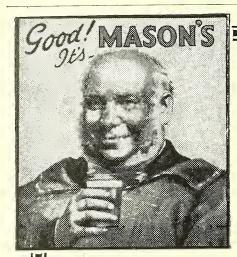
A course of Prideaux's Casumen Chocolate Milk cannot be other than beneficial. Most Chemists, Grocers, Stores supply tins at 2s. 4d., 1s. 3d., and 6d.

The above prices are subject to 20 per cent. discount, carriage paid on 2 dozen assorted tins.

# PRIDEAUX'S PURE CASEIN AND LIFE FOOD CO., LTD. MOTCOMBE, SHAFTESBURY, DORSET. TELEPHONE: SHAFTESBURY 4

London Office: Bank Chambers, 16 Southwark Street, S.E.I.

Telephone: Hop 3687



IT WILL PAY YOU WELL TO MAKE A

"GOOD! IT'S MASON'S" Window Show

MASON'S **EXTRACT** OF HERBS

Apply for Illustrated Particulars

Newball & Mason Ltd., Nottingham

FINEST PURE LOFOTEN

BRÖDR AALESUND, Guaranteed to comply with the requirements of the B.P. Government Certificate of Control accompanies each shipment

Sole Agents for U.K. (excepting Scotland) SMITH & CO. 21 Mincing Lane, London, E.C.3 FREUDENTHEIL

Tel. Add.: "Freudenruf."

ESTABLISHED 1826.

Tel. No.: Mansion House, 6600

For CONSTIPATION, LIVER and KIDNEY TROUBLES Retail prices 6d., 1/1, 2/2 and 4/4 packages.

Also GARFIELD TEA SYRUP, Retail 1/3 and 2/6 bottles. Order from your wholesaler. Samples on request from:

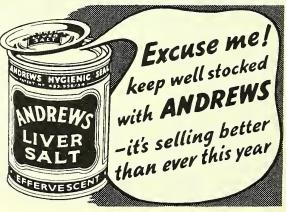
#### **VITAMIN TESTED YEAST"**

Yeast specially prepared for medicinal purposes GUARANTEED ABSOLUTELY PURE

MIDGLEY & PARKINSON, LTD. Warren Works, Pudsey, LEEDS

GARFIELD TEA CO., 44 Foxbourne Rd., London, S.W.17





# Products of BENGER'S FOOD for INFANTS, INVALIDS and the AGED. Liquor Pepticus (Benger). An exceedingly active fluid pepuin. Dose, one or exo ecapoortis with metals. In 4.8 and 16 oz. bottles. BENGER'S PETIONISING POWDERS. Haff a powder will peptonise a pinc of milk, grand, beef rea, exc, in a few minutes. In boxes of 6 and 12 powders. BENGER'S PETIONISING POWDERS. Haff a powder will peptonise a pinc of milk, grand, beef rea, exc, in a few minutes. In boxes of 6 and 12 powders. LIQUOR PANCREATICUS (Benger). Constituting all the active principles of the feeds of

# THROUGH THE TURNSTILE



Chemists' Printers since 1842

The turnstile provides an excellent analogy. It implies a businesslike, one-at-a-time orderliness. Similarly, we give every enquiry or order for labels the utmost attention — knowing individual what the chemist wants and what attracts the public: visualizing the special requirements; designing the label accordingly and printing speedily and economically.

The experience of nearly a century is at your service for your particular needs. Write us on all label problems. Let us quote you for Bags, Envelopes, Billheads, Dispensing Labels, Wrapping Paper, Prescription Books, Handbills, Toothbrush Envelopes.

#### FORD, SHAPLAND & CO. LTD.

Gt.Turnstile, High Holborn, LONDON, W.C. I Hol. 4695

Continuous and Steadily Advertised Goods FOR DESTROYING RATS AND MICE

## DANYSZ

Retail Price (Protected) Virus for Rats and Mice, single tube, 2/-Net Wholesale Price 15/- per doz. Virus for face and mice, single cutor, 2/3 tubes, 5/-3 tubes, 5/-3 tubes, 5/-3 tubes, 3/-3 Date-expired tubes returned to us postage paid will be exchanged free of charge

#### Danysz Virus in Liquid Form

Retail Price Wholesale Price Bottles 6/- each 4/6 each 3/9 ,,

#### HALLER'S EXTRACT OF SQUILL and DANZO RAT KILLER

Discount off Retail Prices 25% Monthly Account, or 33½% Cash with Order.

Retail with Order.

Monthly A/c Cash with Order cash † gall. tins . . 10/- . . 18/- . . 5 ,, ,, . . . 80/- . . 6/8 • 12/~

#### DANZO BEETLE POWDER

For destroying Blackbeetles, Cockroaches, Crickets, &c. Retail Prices (Protected) In cartons 9d. cach Wholesale Prices 6/9 per doz. 13/6 ,, ,, 27/- ,, ,, ,, 1/6 ,, ,, 3/- ,, Danzo Beetle Powder will not deteriorate by keeping.

CARRIAGE PAID ON ALL ORDERS. To be obtained from

#### HALLER LABORATORIES, LTD.

325 Borough High Street, LONDON, S.E.1

Telegrams: "Virudana, Sedist, London." Telephone: Hop 2717

## KILLGERM' Disinfectants

FLUIDS · SOAPS · POWDERS TOILET ROLLS · INSECTICIDE FLOOR POLISH · SULPHUR CANDLES

May we send you samples and prices?

#### THE KILLGERM CO. LTD.

CLECKHEATON, YORKS

TELEPHONE: CLECKHEATON 557 & 558

#### HARVEY'S Horse Remedies

P.A.T.A. Protected Prices.

THESE Remedies are used in most of the Training Stables, Stables of Masters of Hounds, and by many thousands of the best Private Horse Owners in the United Kingdom and Abroad.

Supplies through all Wholesale Houses.

HARVEY & CO. (DUBLIN), Lid., DUBLIN

# SURE DEMAND GOOD PROFITS

There is always a good demand for Sherley products. They are prepared by fully qualified analytical and pharmaceutical chemists, and are renowned for purity, safety and efficacy. Extensive advertising always keeps them in the public eye and the public buy. Trade terms are generous, and in addition we offer quantity terms of

Discount on £2 Parcels plus a further

5% For Window Display

YOU cannot afford to be without such quick-selling lines as Sherley's Tonic & Condition Powders, Worm Capsules and Powders, Canker Lotion and Powder, Lactol, etc. Therefore order NOW.

A. F. Sherley & Co. Ltd., 18 Marshalsea Road, London, S.E.I

# SHERLEY'S

DOG And Cat MEDICINES



## NICOTINE INSECTICIDES

(PART 2 POISON)

Nicotine 95-98%; Nicotine Sulphate 40%. Nicotine Fumigants (Shreds, Compound, Rolls). "Lyce-Deth" (A Super Poultry Perch Paint). Nicotine Washes (Nico Soap, etc.). Nicotine Dusts, 2%, 3% or 4% grades.

Apply for particulars to:

J. D. CAMPBELL NICOTINE MANUFACTURER

17 LUND STREET, MANCHESTER 16

## BATTLE'S VERMIN KILLER

Of all Patent Medicine Houses at 3/-, 5/and 9/- per dozen.

In packets at 5d., 9d., 1/3, 2/6 and 5/- each.

(P.A.T.A.)

The sure destructive agent which may be confidently recommended by Chemists for quick clearance of rats and mice.

Prepared only by

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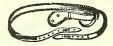
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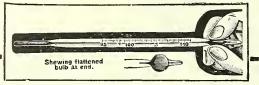
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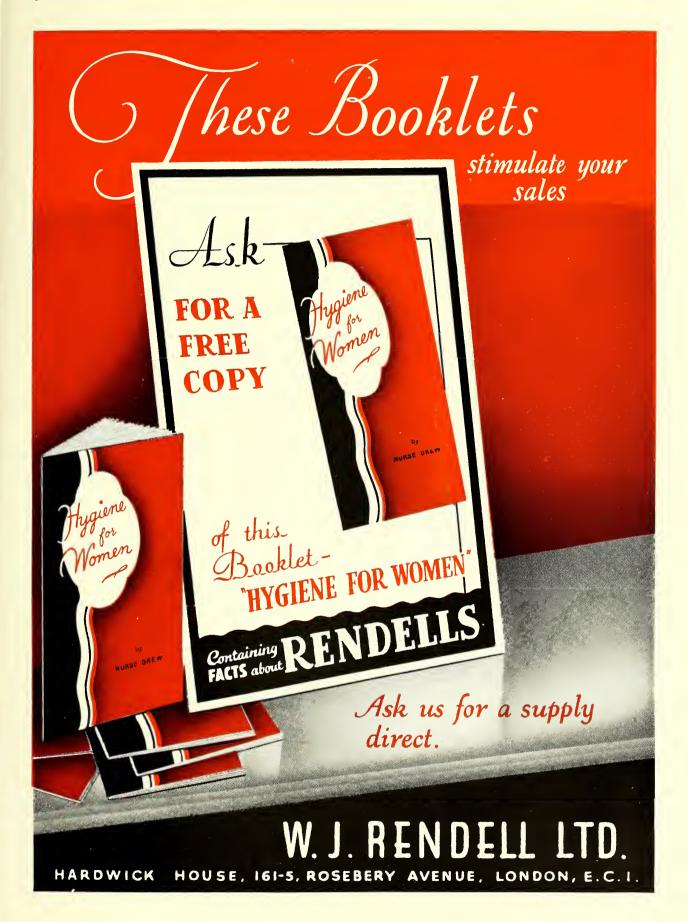
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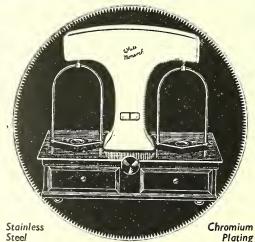






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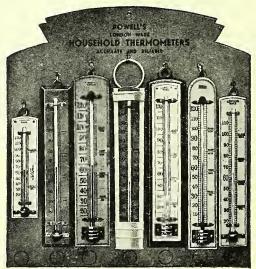


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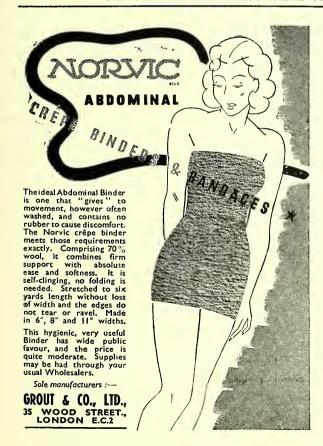
The above selection prominently displayed will assist you in meeting local demands.

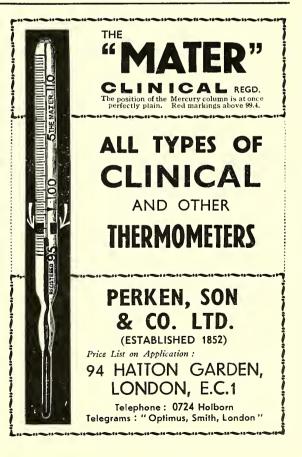
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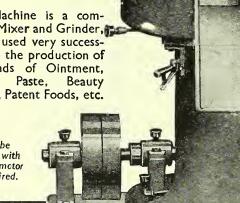
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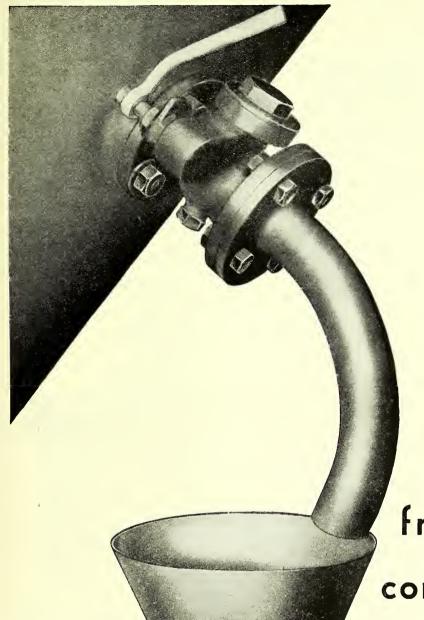
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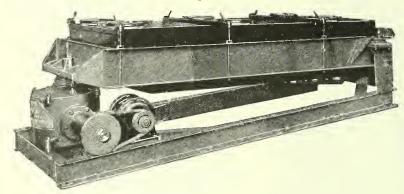


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THE "LEO" IS MADE WITH SINGLE, DOUBLE AND TRIPLE FILLING HEADS, ACGORDING TO OUTPUT REQUIRED.

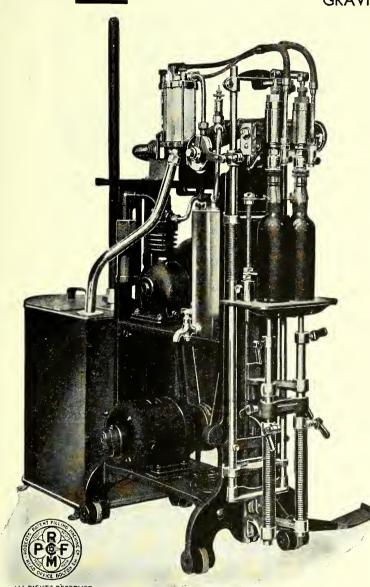
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#### HANDY AS A PIPETTE!

This machine is exceptionally handy for making up experimental emulsions. It is compact and efficient and can be cleaned quickly without dismantling. Emulsification is

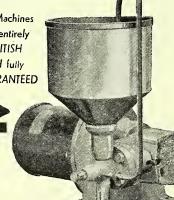
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This machine operates on the same principle as the laboratory model, and will give as satisfactory results. The pressure can be varied up to a maximum of 350 lbs. per square inch. It has an output of 20/25 gallons per hour, but small quantities can be treated as effectively as in our laboratory model.

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IF DESIRED



It will thoroughly mix liquids of different specific gravities.

It will dissolve or incorporate light powders into any liquid.

Standard sizes from 2 gallons to 50 gallons can be made up to 500 gallons.

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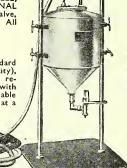
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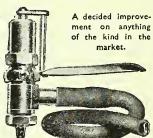


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Strongly made in Gun Metal (Chromium Plated). Worked by hand grip, and is easily cleaned. Cannot get out of order.

Price complete with three interchangeable nipples (3 mm. for SPRINKLER NECK NECK Bottles) 28/6 post free.

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46 ST. MARTIN'S AVENUE 'GRAMS: "LAUDER 43039 LEEDS"

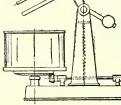
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**FOR** 

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Illustration of Paste Mixing Machine

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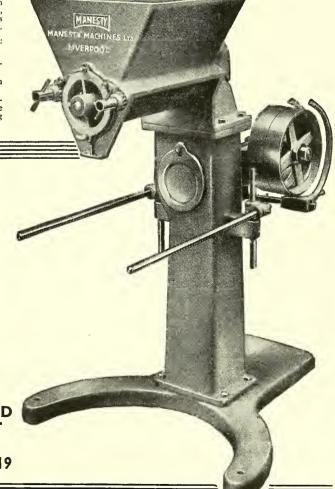
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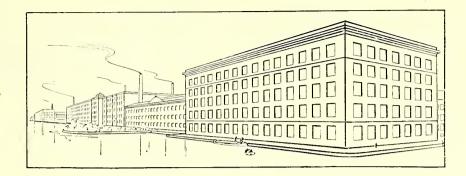
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The official organ of The Pharmaceutical Society of Ireland, The Pharmaceutical Society of Northern Ireland, The Chemists' and Druggists' Society of Ireland, and of other Chemists' Societies in Overseas Dominions

#### ANNUAL SPECIAL ISSUE 1938

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#### News of the Week

#### **Business Changes**

The business of Dawson West, chemist, High Street, Keighley, is to be transferred to 45 North Street.

Mr. J. W. Thomas, M.P.S., has bought the business of Mr. B. D. Cameron, M.P.S., 20 The Grangeway, London, N.21.

#### Air Raid Warning System

The Home Office, Air Raid Precautions Department, Memorandum No. 8 contains detailed information as to the method and form in which warning of air raids, should the necessity arise, will be given, including the following:—General description of the system, areas covered by public warnings; codes of public warning signals, selection and installation of instruments, standard signals for use in streets. The appendix includes a summary of raid warning messages. The memorandum is now on sale at H.M. Stationery Office, price 3d.

#### Key Industry Duty Exemption

The Treasury have made an Order under Section 10 (5) of the Finance Act, 1926, exempting Alpha Naphthyl Isothio-cyanate from Key Industry Duty from June 22, 1938, until December 31, 1938.

#### M. & B. 693

In view of the publicity regarding this chemical, Pharmaceutical Specialities (May & Baker), Ltd., Dagenham, have sent us the following:—

Some attention has been given in the medical Press, and subsequently in the lay press, recently, to the latest product of our research laboratories, M. & B. 693. This attention has resulted in our receiving a large number of inquiries from our friends in the trade, and we should be very much obliged if the position regarding this material could be made clear through the medium of your columns. The product is still an experimental one, and there is not yet sufficient evidence available to assess its true value. Until sufficient controlled clinical research has been done to enable us to say in what directions the product may be used with advantage we could not consider putting it on the market. Until this latter decision is taken we cannot commence the large scale production necessary for unlimited distribution through trade channels.

#### Proprietary Articles Trade Association

Addrtions to Protected List.—Wigglesworth, Ltd., Opas brand Maclean tablets, 7½d., 4s. 9d. doz.; one doz., 4s. 6d. doz.; 1s., 7s. 9d. doz.; one doz., 7s. 6d. doz. Window display terms (fourteen days' display): 7½d. size, three doz., 4s. 3d. doz.; six and twelve doz., 4s. doz.; 1s. size, three doz., 7s. 3d.

doz.; six and twelve doz., 7s. doz. Powder and tablets cannot be grouped for quantity price reduction, but may be grouped for carriage purposes. Carriage paid on parcels of £1 and upwards.

ALTERATIONS.—British Patent Perforated Paper Co., Ltd., Bronco interleaved toilet paper, per carton, 6d., 4s. 2d. doz.; six doz., 4s. 1d. per doz.; twelve doz., 4s. doz. Less 5 per cent. (45s. 6d. gross) on three gross assorted in either roll or packet form. Wigglesworth, Ltd., Opas brand Maclean powder: Window display terms (fourteen days' display), 7½d. size, three and six doz., 4s. doz.; twelve doz., 3s. 9d. doz.; three and six doz., 1s. 6s. 3d. doz.; twelve doz., '6s. doz.; three and six doz., 1s. 9d., 11s. doz.; twelve doz., 1ss. 6d. doz. See note above about grouping powder and tablets.

#### Summer Outings

Photographic trades' social club.—Members of the club and friends to the number of 300 were the guests of the Kodak Recreation Society and Kodak, Ltd., at the Kodak sports ground, Wealdstone, on June 18. Teams representing both sides competed in cricket, bowls, shooting, tennis, etc. Tea was provided, and this was followed by a flannel dance. During an interval in the dancing Mr. George A. Heed (president, P.T.S.C.) expressed the hope that the P.T.S.C. would be able to reciprocate. He requested Mr. C. Abbott to convey to Mr. Webb (president) and the committee of the Kodak Recreation Society, and to Kodak, Ltd., the best thanks of the club.

NORTH METROPOLITAN BRANCH.—Members and friends of the North Metropoltan Branch of the Pharmaceutical Society who visited the works of The British Drug Houses, Ltd., Graham Street, City Road, London, N.I, on June 16 were conducted through the fine chemical, biochemical and pharmaceutical works, laboratories and general offices. Six guides, assisted by heads of departments, explained processes of interest. The preparation of insulin and anahæmin attracted special attention. During tea, which followed the tour, a vote of thanks was proposed by Mr. J. C. Young (a past-president of the Association), Mr. C. A. Hill responding.

#### London

Association of Pharmaceutical Employees.—A special

discussion meeting will be held in the Council Chamber, 17 Bloomsbury Square, London, W.C.I., on June 28. Officials wil be in attendance from 8.30 p.m. for enrolment of new

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#### THE CHEMIST AND DRUGGIST Special Issue

June 25 1938



members and receipt of contributions. The meeting commences at 9 p.m.

SOUTH-EASTERN ANNUAL MEETING.—The following officers were elected at the annual meeting of the South-East London Chemists' Association held on June 14, Mr. W. C. Spooner in the chair:—President, Mr. James Paterson; Vice-President, Mr. J. Edwards; Junior Vice-President, Mr. E. Richardson; Treasurer, Mr. E. Richardson; Financial Secretary, Mr. W. B. Paton; General Secretary, Mr. Frank Hepburn, 13 Wellington Road, S.E.7; Auditor, Mr. S. E. Lockyer. During the evening a handsome bookcase was presented to Mr. E. Oswald Wells in recognition of his services to the Association. Mr. Wells recounted many of his experiences as secretary, thanked members and expressed good wishes to Mr. F. Hepburn, his successor.

#### Miscellaneous

KENT ANALYST'S REPORT.—Of forty-five drug samples examined by the Kent County Analyst, as recorded in his recent quarterly report, the only one of inferior quality was a purchase of ammoniated tincture of quinine, in which there was insufficient solution of ammonia.

British Insecticide Manufacturers.—At the recent annual general meeting of the Association of British Insecticide Manufacturers the following officers and executive committee were elected to serve for the year 1938-39:—Chairman: Mr. L. F. Braga; Honorary Treasurer: Mr. H. J. Jones; Honorary Auditor: Mr. R. A. Blair; Executive Committee: Messrs. R. A. Blair; W. V. Blewett, E. Z. Bolt, R. V. Craven, J. S. Mitchell and Dr. J. H. Reid; Secretary: Mr. J. Davidson Pratt, 166 Piccadilly, London, W.1.

#### Welsh Notes

#### Pontypridd

Officers.—The following officers were elected at the annual general meeting of the Pontypridd and Rhondda Valley Branch of the Pharmaceutical Society recently:—President, Mr. T. E. Evans, Ferndale; Vice-President, Mr. J. Davies, Tonypandy; Treasurer, Mr. W. H. Thomas, Treforest; Secretary, Mr. D. H. Lewis, I Ceridwen Street, Mardy, Ferndale, Glamorganshire.

#### Miscellaneous

Social programme.—During the coming months the Cardiff Branch of the Pharmaceutical Society is arranging an outing, primarily for apprentices; a works visit; an address on criminology by the head of the scientific laboratory attached to the Cardiff Police Force; and a smoking concert for male members. Full particulars of the programme may be obtained from the Branch secretary.

A CORRESPONDENT WRITES: "Business in South Wales during the last two months has been extremely bad and has made even the South Wales tradesman, used as he is to poor trade, 'sit up' and take note of the progressive decline in turnover. Pennyworths and threepennyworths seem to be the local normal and English pharmacists, told by the national newspapers that times are brighter, have no idea how bad matters are in South Wales, with works closing down almost daily at Llanelly, Ebbw Vale, and other places."

#### Irish Notes

#### Pharmaceutical Society of Ireland

The latest dates for making application for admission to the July Examinations of the Pharmaceutical Society of Ireland are:—Registered Druggist examination, June 28; Pharmaceutical Licence examination, July 4; Pharmaceutical Assistant examination, July 11. Applications must be lodged by 11 a.m. on the appointed date,

#### Miscellaneous

Mr. R. B. Alexander, J.P. (Jordan, Wilson & Alexander, Ltd., wholesale druggists, Belfast), is a candidate in a by-election in the Victoria Ward, Belfast.

ELECTED TO DAIL.—Among the successful candidates at the recent general election in Eire were Mr. J. J. Cole, M.P.S.I., Cavan, and Mr. Frank Loughman, M.P.S.I., Tipperary. Mr. Loughman is a prominent member of the Irish Compounders' Association.

DEATH FROM STRYCHNINE POISONING.—A verdict that death was the result of strychnine poisoning was returned at a resumed inquest at Ballynoe on June 3 on Mrs. Nora Moore. The certificate of the state pathologist, who examined the internal organs, showed that two-fifths of a grain of strychnine was discovered.

AT PAST PUPILS' REUNION.—Mr. M. J. O'Rourke, M.P.S.I., Dun Laoghaire (a past president of the Pharmaceutical Society of Ireland) was elected vice-president, 1938-39, at the annual meeting of the Rockwell College Past Pupils' Union, on May 29. Mr. J. J. Sewell, M.P.S.I., Killarney, a former vicepresident, was re-elected to the committee.

#### Scottish Notes

#### Pharmaceutical Society, North British Branch

At a meeting of the North British Branch of the Pharmaceutical Society, held at 36 York Place on June 15, the results of the election of the Executive were announced. The scrutineers' report stated that forty-four members had been nominated, of whom twenty-one signified their willingness to act; 2.817 voting papers were issued, of which 684 were returned (680 effective). The results were:—

Culbert, William Spence			525
Innes, James	•••		513
Duff, Peter Methven			509
Bennett, Frederick William			507
Mackenzie, Thomas			567
			504
II SAZORO E IN	•••		489
	•••	•••	
Milne, James Robertson	•••	• • •	481
Henry, James	•••	• • •	475
Arthur, Harvey Phillips	• • •	• • •	466
Miller, Thomas Campbell	• • •	• • •	456
Anderson, John			454
Ritchie, Andrew Wemyss			450
Beattie, William Andrew			437
Currie, Archibald			427
Murray, Alexander			425
Sinclair, Thomas Lowrie			415
Couper, Robert John Ashcre	oft		376
• '			

Anderson, John Melvin		375
Mair, William		
Moncur, Douglas Alexander Ram	say	329

The first eighteen were declared elected.

#### Miscellaneous

W. E. TAYLOR & Co., LTD., manufacturing chemists, have removed from Argyle Street to III North Street, Charing Cross, Glasgow, C.3.

STIRLING PHARMACY ROBBERY.—The two men charged with holding up and robbing Mr. James Dowell, M.P.S., Stirling, recently (C. & D., June 11, p. 665), have been remitted to the

Presentation.—Mr. D. D. Doig, secretary of W. & R. Hatrick, Ltd., manufacturing chemists, Glasgow, was recently presented with a number of pictures to mark his retirement from the firm. Mr. Doig entered Messrs. Hatrick's service in 1902 and became a director when it was formed into a limited company.



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#### Golf Meetings

EIRE v. NORTHERN IRELAND.—For the first time in five years Northern Ireland chemists won the B.D.H. cup at the recent meeting, defeating the chemists of Eire on the Belvoir Golf Links by ten matches to five. The competition was over eighteen holes. The trophy was presented to the winners by Mr. R. Guiler on behalf of the British Drug Houses, Ltd. The scores were:—

	Eire			Northe	RN I	RELAND		
D. O'Reilly		 	O	F. A. McMulla	ın		٠.	Ι
R. White		 	O	A. Hardy				1
B. Smith		 	O	W. Burns				Ι
A. F. Roche		 	1	J. Balmer				0
A. McManus		 	1	W. Orr				0
R. Bates		 	1	H. Rankin				0
A. Brunker		 	0	G. McCann				I
J. J. Roche		 	0	A. Allen				Ι
J. F. O'Hara		 	O	S. Gamble				Ι
M. Costello		 	0	R. Mathers				1
P. H. Fahey		 	0	S. H. Forrest			٠.	1
P. C. Carroll		 	I	J. A. McRober	ts			O
R. Such		 	I	N. Hogg				0
P. D. Larkin		 	O	W. J. Rankin				I
C. W. Chesson		 ٠.	O	R. J. Jeffers				Ι

A vote of thanks to the Northern chemists for their hospitality was moved by Mr. A. F. Roche, seconded by Mr. R. Bates. Mr. S. H. Forrest (president, Pharmaceutical Society of Northern Ireland and a competitor) replied. On the proposition of Mr. W. J. Rankin a vote of thanks was passed to members of Belvoir Club for placing the links at the disposal of the teams.

EDINBURGH CHEMISTS' GOLF CLUB.—In a competition played over Kilspindie course on June 1 the following were the best net returns:—Mr. J. McLaren, 67; Mr. T. Young, 70; Mr. W. S. Spence, 76.

Manchester v. Liverpool.—The annual competition between the Liverpool and Manchester chemists' golfing societies for the Gibbs trophy and replicas took place at Warrington Golf Club on June 15. In this competition teams of twelve a-side play a medal round from club handicaps, the winning team being that returning the eight best net scores. Liverpool won by two strokes. The scores were:—

Liverpo	OOL		Manchester				
J. M. Broadbent	7.		72	J. H. Franklin			75
A. Fairbairn			73	B. Westmacott			77
R. W. Williams			76	C. Compston			77
J. Glover			77	W. J. Hope			78
S. F. Alder			77	C. Stevens			80
L. C. Turnpenny			83	F. D. Gee		,	81
A. P. Peake			85	R. McGarroll			82
A. W. Della			87	G. M. Evans			82
		_			_		
		(	630				632

Mr. Insole, representing D. & W. Gibbs, Ltd., presented the trophy to the Liverpool captain and the replicas to the members of the winning team. A vote of thanks to Messrs. Gibbs and to Mr. Insole was proposed by Mr. J. H. Franklin, seconded by Mr. J. M. Broadbent and supported by Mr. V. J. Hope.

#### Topical Reflections

By Xrayser

#### The Prescribing of Proprietaries

The first editorial article in your issue of June 18 (p. 699) suggests many questions concerning proprietary medicines. It may be useful to try to view this field for a moment from the standpoint of the general medical practitioner. He has, let us suppose, an account with a manufacturing house, or more than one, particularly if he runs his own dispensary. He gets to like the galenicals of Messrs. X. What more natural, therefore, than for him to ask Messrs. X or their traveller if they make a palatable and easily miscible preparation of cinchona, valerian, or some other drug? The recommended preparation arrives, accompanied by "literature" devised by the medical expert or experts of the firm; the general practi-tioner is thus launched on the prescribing of something describable as an ethical product, a proprietary, or both. When meeting his professional colleagues after duly trying the new product for various patients, he not infrequently takes up the attitude—and he may be sincere in this—that he gets a better result with X's proprietary than with the relative or corresponding preparation of the British Pharmacopæia. Its composition is known; palatability and miscibility are good; dosage is easily calculated; the reputation of the manufacturing house in unimpeachable. And when the same doctor learns from his daily paper that another manufacturing house, which supplies nationally advertised products to the world at large, also has its research departments staffed by experts and is genuinely interested in pharmacological investigation, he begins to look on the medicines of this second house with a kindly eye, and if he finds a patient of his taking them advises him to continue taking them.

#### The Incalculable Factor

As is well known, there is an unofficial censorship of advertisements in this country in addition to the rigorous scrutiny to which all are subjected in the offices of reputable newspapers—hence the tendency to which you refer "for these preparations to be more carefully advertised" here than on

the other side of the Atlantic. The academic distinction between a name and a thing, cited by you from a United States medical journal, seems to me lacking in substance. If a revised edition of a book can usefully appear from time to time, I see no material objection to the occasional revision of the formula of a medicine. A nineteenth-century instance of such revision was found in private formulas for what was known as Godfrey's cordial, which in some pharmacists' recipe books showed successive changes in the proportion of sedative used. Medicines, like books, have their fates, fading out, perhaps, through causes which are not very clear, after a long and successful run. That element of risk embodies the incalculable factor in marketing a proprietary. It has been put to me—and I am disposed to accept the suggestion—that manufacture limited to a few proprietaries of constant formulas, reinforced by scientific laboratory control, may well result in products more perfect pharmaceutically than similar ones manufactured in the ordinary way, even by houses of equal standing.

#### Commission of Pharmaceutical Experts

The credentials of the pharmaceutical experts given, with portraits, on pp. 690-91 inspire confidence in their power to make some advance in the compilation of an international pharmacopæia. I wish them good hunting; and I trust it will not prove to be a hunting of the snark. I need not return to the ground traversed in this section in your issue of February 19: it is more to the point at the present juncture to note the measure of agreement already reached. I can appreciate the fact that draft schemes have been agreed upon and some general principles settled, and I am glad to see that a list of drugs has been divided among the members of the Commission of Pharmacopæial Experts for study in collaboration with other experts. If I am not mistaken, the principal crux will be the evolution of "a uniform method of analysis, assay and preparation of the drugs selected." We may hope that the Chauvinism still lingering in various parts of the world will be unknown in this small assembly of men of science.



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#### Legal Reports

Ingenious Fraud.—At the Marylebone Police Court, London, on June 18, William Edwards, M.P.S., pleaded guilty to the charges of stealing bottles of a medicine known as Elixir Ergoco, value £3 12s., from the chemist's department of Selfridge & Co., Ltd., Oxford Street, London, W.I. For the prosecution it was explained that the accused, senior dispensing chemist at Messrs. Selfridge, had authority to order bottles of medicine from wholesalers with whom the company did business. In his private capacity he apparently formed a company known as Lovelock, Edwards & Co., which he carried on from his private address. One of the products of his company was this elixir, and he called upon the wholesalers in the capacity of Messrs. Lovelock & Edwards, and arranged to supply them with the elixir. Then in the capacity of senior dispensing chemist at Messrs. Selfridge he ordered bottles of the elixir from the wholesalers and supplied them himself through the wholesalers. The allegation against the accused was that he had been stealing bottles of the elixir supplied to his employers and had sent those stolen bottles of medicine to the wholesalers as fresh stock to be supplied by them to Messrs. Selfridge when he ordered it. The ingenious swindle was discovered when by mischance two invoices for the medicine were found together, and it was discovered that there was none of the elixir in stock, although there should have been. The last consignment, in fact, was doing the round again between Messrs. Lovelock & Edwards, the wholesalers and Selfridge & Co., Ltd. The police were called in, bottles of the medicine at Selfridges were marked, and the accused's fraud became clear. Counsel for the defence said he was instructed that the fraud was of nothing like the extent suggested. It was pure suspicion, and a stocktaking would have disclosed any such deficiency in stock. Accused was sentenced to four months' imprisonment.

Pharmacy Act Cases.—At Shrewsbury Police Court, on June 14, William C. Kenyon, Whitechurch Road, was fined £2 for the unlawful sale of tablets containing ephedrine.—At the Caversham, Reading, Police Court, on June 18, Leonard Penny, trading as L. Penny & Sons, Goring, was fined £1 under the Pharmacy and Poisons Act, for having sold disinfectant when his licence had expired.—At Birmingham, on June 13, Sydney Rubenstein, M.P.S., 157 Lozells Road, was ordered to pay fines and costs totalling £6 13s. 6d. for selling a preparation containing codeine on unregistered premises and for not labelling the container with his name and address.—At Doncaster Police Court on June 21, a summons against F. A. Parkin, Ph.C., Market Place, of supplying strychnine otherwise than as an ingredient in a medicine was dismissed, defendant paying £2 6s. costs. Mr. C. McManus, prosecuting for the Pharmaceutical Society of Great Britain, said an inspector on examining the poisons register noticed that a drachm of strychnine hydrochloride had been sold to a game-keeper for the purpose of killing rabbits.

#### Company News

P.C. means Private Company and R.O. Registered Office

Ross Cash Chemists, Ltd. (P.C.).—Capital £100. Objects: To carry on the business of chemists and druggists, etc. R.O.: 44 Crown Street, Acton, W.3.

J. E. Cross & Co., Ltd. (P.C.).—Capital £20,000. Objects: To carry on the business of chemists and druggists, etc. R.O.: Brettenham House, Lancaster Place, W.C.2.

LOXOL, LTD. (P.C.).—Capital £100. Objects: To carry on the business of chemists, druggists, etc. Ronald Armitage, II The Ridgeway, Kingsbury, N.W.9, director. R.O.: II Clarges Street, W.I.

COTTON BROS. (POTTERS MERCHANTS), LTD. (P.C.).—Capital £10,000. Objects: To acquire the business of colour and chemical manufacturers carried on by Cotton Brothers at Longton, Stoke-on-Trent.

FERMENTA LABORATORIES, LTD. (P.C.).—Capital £1,000. Objects:—To carry on the business of manufacturing and dis-

pensing chemists, druggists, etc. Wilfrid W. H. Stansfield, Compton Court, Compton Avenue, Brighton, director.

CHARM SCHOOL, LTD. (P.C.).—Capital £500. Objects: To carry on the business of chemists, druggists, dealers in perfumery, toilet requisites and cosmetics, etc. The first directors are not named. Secretary: Julian J. Tresman. No. R.O. stated.

Bennett, Briant & Co., Ltd. (P.C.).—Capital £1,000. Objects: To carry on the business of manufacturers of and dealers in toilet requisites and novelties of all kinds, chemists, etc. John V. Chalk, ''Inglenook,'' Station Road, Orpington, director.

C. J. Guise, Ltd. (P.C.).—Capital £700. Objects: To acquire the business carried on at Sandringham Road, Hunstanton, Norfolk, as "C. J. Guise"; and to carry on the business of pharmaceutical and dispensing chemists and druggists, opticians, etc.

Castle Chemicals (Hadleigh), Ltd. (P.C.).—Capital £100. Objects: To carry on the business of manufacturing and analytical chemists and druggists, etc. Leslie J. Shearing, 8 Devereux Road, Southend-on-Sea, director. R.O.: The Avenue, Hadleigh, Essex.

A. P. Spence, Ltd. (P.C.).—Capital £100. Objects: To carry on the business of manufacturers of and dealers in surgical, medical and healing instruments and equipment of all kinds, etc. Archibald P. Spence (permanent managing director), 8 Peveril Road, Sheffield, 11.

S. Press (Chemists), Ltd. (P.C.).—Capital froo. Objects: To carry on the business of manufacturers of and dealers in chemicals, drugs, medicines, etc. The first directors are to be appointed. Solicitors: Bulcraig & Davis, Amberley House, Norfolk Street, Strand, W.C.2.

PEDAVITA Co., LTD. (P.C.).—Capital £500. Objects: To acquire the business carried on as the Pedavita Co. and to carry on business as manufacturers of or dealers in chemicals, etc. Ernest J. Moore, 24 Lower Sloane Street, S.W.I, director. R.O.: 136 Sloane Street, S.W.I.

P. C. L., Ltd. (P.C.).—Capital £100. Objects: To carry on the business of manufacturers of and dealers in insecticides, chemicals, drugs, etc. Fdk. W. Lloyd, C.A., 12 Alverstone Avenue, East Barnet, Herts, director. R.O.: Tudor Works, Abbey Road, Park Royal, N.W.10.

London Medical & Surgical Supply Co., Ltd. (P.C.).—Capital £250. Objects: To carry on the business of manufacturers of and dealers in anatomical, orthopædic and surgical appliances, chemists, druggists, etc. The first directors are not named. R.O.: 21 Warwick Lane, E.C.4.

RECKITT & COLMAN, LTD. (P.C.).—Capital floo. Objects: To acquire and amalgamate the undertakings and assets of Reckitt & Sons, Ltd., and J. & J. Colman, Ltd. (except certain specified assets), and to carry on the business of manufacturers of starch, starch products, blue, black lead, metal polish, mustard, mustard products, and antiseptics and all other businesses carried on by the said companies and their subsidiary companies in Great Britain and Northern Ireland, Eire, Europe, North, South and Central America, South Africa, Australasia, India, and other parts of the world; also to carry on the business of chemists, druggists, etc. The directors are: Albert L. Reckitt, 40 Bedford Square, W.C.I; Sir Jeremiah Colman, Bt., Gatton Park, Reigate, Surrey; Sir Philip B. Reckitt, Bt., Arnold Reckitt, Arnold R. Cleminson, James B. Upton, John McLaren, Frank Langthorp, Benjamin T. Priestman, Basil N. Reckitt, Russell J. Colman, Colonel Frederick G. D. Colman, Jeremiah Colman, Alan R. Colman, Sir Basil E. Mayhew and Herbert A. G. Salter.

H. Gordon (London), Ltd., 8 City Road, London, E.C.I. On the petition of Colgate-Palmolive-Peet, Ltd., of Ranelagh Road, London, S.W.I., Mr. Justice Simonds, in the Chancery Division, made an order for the compulsory winding-up of H. Gordon (London), Ltd. Counsel, for petitioners, said they were judgment creditors of the company for £70 15s. 4d. The company did not appear.



THE CHEMIST AND DRUGGIST Special Issue June 25



#### Pharmaceutical Society of Ireland

Council Meeting

THE monthly meeting of the Council of the Pharmaceutical Society of Ireland was held at 67 Lower Mount Street, Dublin, on June 14, Mr. B. P. Hickey, the president, in the chair. on June 14, Mr. B. P. Hickey, the president, in the chair. Other members of the Council present were Messrs. P. C. Cahill, F. J. Fitzpatrick, C. Cremen, D. W. P. Boyd, J. Duggan, P. Brooke-Kelly, J. Gleeson, M. J. Kieran, Dr. J. A. Mitchell, Messrs. W. J. McKnight, J. A. O'Rourke, M. J. Parkes, J. V. McKeever, J. K. Whelehan, T. C. Scott, Sir Thomas Robinson, and Miss F. M. Flood.

#### Correspondence

The law adviser (Mr. John J. Gaynor) reported on a number of cases in which proceedings had been initiated against chemists illegally using the title "M.P.S.I.," and in which a satisfactory settlement had been reached in each instance.

Mrs. T. H. C. Byrne (née Duffy), L.P.S.I., wrote submitting a

marriage certificate and desiring change of name in the register. The application was granted.

Messrs. Thomas Banks, Bernard Emmet, and Miss E. P. Hayes, wrote submitting matriculation certificates and desiring

Preliminary registration. All three applications were granted.

The requests of Mr. M. McCabe and Mr. T. C. Sandford to be restored to the register of Registered Druggists were acceded to.

#### CHANGES OF ADDRESS

Changes of Address

The following changes of address were notified:—Mr. J. P. Kissane, M.P.S.I., from 22 Main Street, Tipperary, to 54 Main Street, Tipperary; Mr. J. B. McDevitt, M.P.S.I., from Cloughfin, Castlefin, co. Donegal, to The Pharmacy, Monaghan; Miss M. M. Duffy, M.P.S.I., from Monedarragh, Edgeworthstown, co. Longford, to 137 Rathmines Road, Dublin; Mrs. T. H. C. Byrne, née Duffy, L.P.S.I. (2073), from Hemingsway, Howth, to Puckscastle, Shankill, co. Dublin; Mr. Michael Curley, L.P.S.I., from c/o Stafford's Medical Hall, Galway, to Mann Street, Ballyhaunis; Mr. N. Graham, L.P.S.I., from Cassan, Inishmore, Lisbellaw, co. Fermanagh, to Drummack, Lisnaskea; Mr. W. J. Moloney, L.P.S.I., from 14 Patrick Street, Limerick, to Clonmacken, Limerick; Mr. J. T. O'Sullivan, L.P.S.I., from 105 Old George's Street, Cork, to 8 Winthrop Arcade, Cork; Mr. P. J. Rice, L.P.S.I. (1244), from 139 Holly Road, Handsworth, Birmingham, to 395 Coventry Road, Small Heath, Birmingham; Mr. H. W. Sheridan, L.P.S.I., from 6 Wine Street, Sligo, to Oughterard, co. Galway; Mr. V. Simpson, L.P.S.I., from Denbrae, Cregagh Road, Belfast, to 3 Shaftesbury Square, Belfast; Mr. Thomas John Field, R.D., from Edenderry, Shaw's Bridge, Belfast, to "Redmarle," Cultra, co. Down; Mr. James Dermot O'Reilly, R.D., from 166 Snelbourne Road, Dublin, to 4 Wyndham Park, Bray, co. Wickley. 166 Snelbourne Road, Dublin, to 4 Wyndham Park, Bray, co.

The reports of the House, Law and Schools Committees were

submitted and approved.

THE REGISTRAR (Mr. J. J. Kerr) reported on the deaths of M. P. McManus, M.P.S.I., College Road, Cork, Thomas L. Foster, M.P.S.I., Western Road, Cork, and R. Armstrong, L.P.S.I., Rostrevor, co. Down.

#### DISPENSING IN PUBLIC INSTITUTIONS

The President moved the following motion standing in his name: "Having heard with grave concern statements made by the deputation from the Irish Dispensary Compounders' Association concerning the compounding of medicines in public institutions in Ireland, the Council of the Pharmaceutical Society of Ireland is strongly of opinion that in any institution receiving public moneys, all compounding of medicine should be carried out by duly qualified pharmaceutical chemists." He said a deputation was received by the Council at the last meeting from the Irish Dispensary Compounders' Association, but unfortunately he was absent. Since that meeting the matter was fully discussed at a Committee meeting. The issue was so grave that he thought it was up to the Council to pass a resolution in the terms he set out.

Mr. Fitzpatrick, who seconded the motion, said there was

a considerable amount of discussion in committee on the issues raised by Dr. O'Donnell and the other members of the deputation at the last Council meeting. It was suggested then by the deputation that the Council should give an expression of opinion on the matter to help the Compounders' Association in their negotiations. The Association themselves ought to enlist the help of the Labour Party when approaching the Minister for Local Government. It was in the interests of the supporters of the Labour people to have qualified compounders in public institutions. It the deputation to the Minister was brought about the Council should arrange for the president or vice-president of the Society to go with them. The presence of the president or vice-president would strengthen the case of the Compounders' Association to have all dispensing done by qualified chemists, and not by attendants and porters as at present in many institutions. The deputation when it went to the Minister would no doubt be met by the point that the doctors did all the compounding in these institutions, but from their information a statement of that kind was far-fetched. It would be well to bring pressure to bear on the department responsible to end the existing practice. It seemed unfair that the infirm poor should be able to get medical attention but not proper compounding. If they were to be given the services of a doctor they should also be afforded adequate service in compounding. They as a Council would be neglecting their duty by not strengthening this body of compounders in every way they could. He would like to hear any other suggestions as to how they could support these people.

MR. WHELEHAN said one aspect of the case—the economic aspect—was a very important one which could be stressed by any deputation sent to the Local Government Department. The appointment of a county pharmacist in each county would make for economy and efficiency. In his own county of Westmeath alone they had nineteen dispensaries, in which there must be a terrible lot of duplicating and waste. If they had a county pharmacist to order supplies for all these dispensaries he would save more than his salary, apart from the tact that the dispensaries would be more efficiently run, and stocked with fresher drugs. This was a point which should be

stressed.

MR. Scott asked if the matter was one that could be discussed in the lay Press.

THE PRESIDENT said he did not think so just at present. MR. O'ROURKE said there should be an inquiry into the whole dispensing system in the country.

Mr. Cahill thought they should get one of the chemist deputies to raise the matter in the Dail by way of question. He did not agree with the suggestion that the Labour people should be brought into the matter. The chemists should The chemists should stand on their own legs.

Mr. Fitzpatrick said all this business showed how essential it was that they should have a member in the Dail. If an independent chemist went forward tied to no political party he would get in, but it would cost £500 or £600. It was not for them, however, to suggest to the Compounders' Association what to do.

MR. BROOKE-KELLY: This motion is to give them a backing. MR. FITZPATRICK: Yes, and that is important, but it would be impertinent for us to tell them how to do their own business. The motion was passed unanimously.

#### Professor of Pharmacy Appointed

The Council then proceeded to appoint a Professor of Pharmacy to fill the vacancy created by the resignation of Mr. T. J. Smith. Miss Kathleen Fogarty, M.P.S.I., 61 Palmerston Road, Dublin, was unanimously appointed Professor for the year ending June 1, 1939.

#### SENATE ELECTION

The business of nominating candidates on the Cultural and Educational Panel in the forthcoming Senate election was next before the Council.



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 $M_{\rm R}.$  Fitzpatrick proposed that the President and Vice-President (Mr. P. C. Cahill) be the Society's standard bearers in the election.

Miss Flood seconded.

Mr. O'Rourke suggested that the matter be postponed for the present.

MR. FITZPATRICK pointed out that nominations must be in by July 8, and the next Council meeting was July 12.

MR. O'ROURKE: You can't ask people to vote for two candi-

dates. We want one real candidate.

MISS FLOOD: You will find we will get two in this time. MR. CAHILL said he had discussed this matter for a long time with Mr. Hickey, but they did not know what to do about it. It was true they got very near succeeding last time, but against this several other bodies very nearly got their nominees in, and they would be inspired to greater efforts the next time. Personally he did not like the idea of two candidates, as it meant making a scapegoat of one. For that reason he was inclined to ignore the election altogether. In any contest the people that counted were the country, because they knew the most members of the electoral college. If the members of the Society in the country were not prepared to work there was little use putting anyone forward. In the last election some half a dozen counties did work, but in twelve counties they did nothing. Should the Council decide to go on, every member in the country should support them by working for the candidates. There were four seats on the Panel on which they could nominate, but three of those were gone already, so that they would actually be fighting for the fourth seat. Unfortunately pharmacists had not great influence with the parties that controlled the votes, but, even so, if they put up candidates they

should do their best to get them in.

Mr. Brooke-Kelly: Do you suggest putting up no

candidate?

Mr. Cahill: I say you must put up two or none.
Mr. O'Rourke: I think it is better to concentrate on one candidate. If we put up the President and Vice-President it places members in the country in a difficult position. We cannot ask for two votes, but we can ask for one. That is why I am inclined to wait a little while and call a special meeting.

MR. FITZPATRICK: Special meetings are not easy to call, and you have the expense of bringing up provincial members. When you called a special meeting before there were only seven of us

and the business was over in three minutes.

MR. O'ROURKE: The last time we had one candidate to concentrate on.

MR. FITZPATRICK: The last time it took me all my time to see that the second candidate did not win. I suggested the two names for the purpose of discussion. Can anybody suggest others?

SIR THOMAS ROBINSON: Are we compelled to put forward two?

MR. FITZPATRICK: Yes.

SIR THOMAS ROBINSON: The Vice-President has the experience of the last election. Do you think something in the way of County Committees would help?

Mr. Cahill: Yes, we need something like that. The man that beat us the last time got in on a fifty-fifth preference. If some of our people asked for a fiftieth preference we would have won.

SIR THOMAS ROBINSON: It is hopeless to ask your men to go up unless you are prepared to organise the counties for them, and there are not many counties represented on this Council. (To Mr. Cahill): Is it in your mind that if two go

up they will split the votes of their friends? MR. CAHILL: I do not say that a second candidate is dangerous, but I say there is no hope of getting in two. I am satisfied there is only one seat possible. The only way to do the thing is to get the support of the Irish Drug Association and their organisation all over the country. I am inclined to agree with Mr. O'Rourke that the complexion of the new Dail

will affect the Senate Election. MR. Whelehan said as one of the provincial members be would suggest that the Council issue a manifesto and urge upon country members to canvass people in their locality on the Electoral College at once. The balance lay in the hands

of the country members, because they were intimately in touch with the electorate. Then the I.D.A. should send out a whip and County Committees should be formed without delay, as Sir Thomas Robinson mentioned. The electorate approached could be asked to vote for the two of their candidates, or one if they wished.

MR. CREMEN: You are going to split the vote.

Mr. O'Rourke moved as an amendment that consideration of the matter be deferred until after the result of the Dail

MR. McKnight, seconding, said he did what Mr. Whelehan suggested now at the last election, and went out and canvassed. The first thing he was asked was the political complexion of the candidate. At present it was really difficult to ask the country members to canvass, and for that reason he suggested a postponement.

MR. O'ROURKE said it was rather unfair to ask the President and Vice-President to decide who was to be in the running.

The President said he was prepared to withdraw as a candidate there and now, and several members protested that they did not wish him to withdraw.

SIR THOMAS ROBINSON: There are only two things before the meeting: one is that we nominate nobody, and the other that we nominate the members proposed to-day. If we decide to nominate, who has more right to be nominated than the President and Vice-President?

Amidst applause the Council unanimously agreed to the motion that the President and Vice-President be nominated.

#### OTHER MATTERS

Mr. P. J. Sweeny, 26 Ellis Quay, Dublin, was elected a

member of the Society.

The following were nominated for membership: Miss J Collins, 88 Contarf Road, Dublin; Miss M. Duffy, 137 Rathmines Road, Dublin; Miss B. O'Keeffe, 4 Railway Cottages, Mines Road, Dublin; Miss B. O Reelle, 4 Railway Cottages, Kilbarry, Cork; Messrs. A. Fine, 77 Queen Street, Dublin; J. Marks, 42 Lower George's Street, Dun Laoghaire; J. R. Lawless, 550 North Circular Road, Dublin; A. J. Murray, 19 North Frederick Street, Dublin; J. B. McDevitt, The Pharmacy, Monaghan; C. W. Tipping, Medical Hall, Letterkenny; and H. I. Wagner, 96 Summerhill, Dublin.

The Licence Certificates of Mr. J. J. Doyle and Mr. J. J. F.

Fitzgerald were signed and sealed.

At the close of the business on the agenda a meeting of the Benevolent Fund Committee was held.

#### Lead Poisoning Treatment

The results of a technique termed "de-leading," involving the use of parathyroid extract in the treatment of lead poisoning, are outlined by Tompsett ("Lancet," April 30, p. 994). The patient was a woman aged twenty-five, who had previously been in good health and who was admitted to hospital complaining of "pains in the bones," general weakness, severe abdominal colic and obstinate constipation. She was thin and pale and had a very obvious lead line round the gums. After paie and had a very obvious lead line found the guins. After a pregnancy of two months, she had an abortion a fortnight before admission to hospital and disclosed the fact that she had taken a "medicine" containing acetate of lead in a strength of 70 gr. to the pint. It was estimated that in all 110 gr. of lead acetate were taken over a period of one month. In spite of the symptoms described, the patient had continued with regular doses of the solution up to the abortion. The treatregular doses of the solution up to the abortion. The treatment consisted of salines, enemata and a high calcium diet. In addition, calcium lactate gr. 15 was given three times a day. She was given a low calcium intake and parenteral parathyroid -a treatment which increases the calcium and lead excretion in the fæces and urine, and has been described as de-leading. Clinical improvement followed, and the patient felt much stronger, injections of liver extract and iron orally being given to affect an improvement in the blood. Three weeks later a further course of parathyroid injections was given. Similarly in two months' time, on readmission to hospital, a further course was given and a low calcium diet reinstated. Examination of the patient revealed satisfactory progress, the lead line having disappeared and the urine having become normal.



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#### Pharmaceutical Society of Northern Ireland

Council Meeting

THE Northern Ireland Pharmaceutical Council combined business with pleasure on June 16 when they visited Londonderry for their monthly meeting, and afterwards went on a motorcoach tour of the Lough Swilly district of co. Donegal as the guests of the Londonderry Chemists' Association. Accompanied by their wives, the party travelled from Belfast by the morning train, and held the Council meeting shortly after arriving in Derry at the Melville Hotel, Foyle Street. The president (Mr. S. H. Forrest) was in the chair, and there were also present Messrs. W. C. Tate (vice-president), J. McGregor, S. Gibson, J.P., W. Martin, James Glendinning, J. W. Gray, James McDowell, Dr. Acheson, and the secretary (Mr. D. L. Kirkpatrick). Apologies for absence were received from Sir Thomas McMullan, Professor J. Small, Mr. J. F. Grimes, J.P., Professor Mayrs, Mr. I. W. Parker, Mr. J. T. Nicholl, Mr. H. F. Moore and Mr. J. E. Connor.

THE SECRETARY submitted the memorandum of pharmacy administration for the year ended December 31, 1937, recording the following totals on the registers:—Pharmaceutical Chemists 918; Superintendents of bodies corporate (Ph.C.) 81; Chemists and Druggists 9; Registered Druggists 138; Superintendents of bodies corporate (R.D.) 1; Certified assistants 7; Apprentices 582. The memorandum also stated that twenty-seven apprentices qualified by examination as pharmaceutical chemists, and registered as such during the year. In addition two persons availed themselves of the provisions of Section 7 (I) a. of the Pharmacy and Poisons Act (Northern Ireland), 1925, and another of Section 7 (7), and were registered as Pharmaceutical Chemists. Licences issued were: -Pharmaceutical Chemists 507; Registered Druggists 42. Of Pharmaceutical Chemists' licences ninety-nine were issued to bodies corporate, and eleven to executors of deceased Pharmaceutical Chemists. Three of the Registered Druggists' licences were issued to the executors of deceased Registered Druggists and two to bodies corporate. On December 31, 1937, there were 151 agricultural poison licences in force, compared with 148 on

During the year the pharmacy inspector continued to pay visits not only to persons licensed under the Pharmacy and Poisons Act, 1925, but also to agricultural and horticultural poison licence-holders and persons licensed to sell methylated spirit by retail. He was also continually on the look-out for persons making illegal sales of poison either from their shops or in markets and fairs. Two successful prosecutions were taken under the Pharmacy and Poisons Acts. Among the prosecutions taken under the Dangerous Drugs Act a Pharmaceutical Chemist was convicted.

THE SECRETARY announced that the following candidates had been successful in the Pharmacy Preliminary examination: William S. Abernethy, Nora P. Faulkner, Wm. Logan, Robt. R. McGimpsey and Robt. C. Matthews.

A letter was read from the principal of Enniskillen Technical

School requesting a grant from the Council.

On the motion of Mr. Gray, seconded by Mr. McDowell, the matter was referred to the Finance Committee.

This concluded the business of the meeting.

#### EXCURSION ON LOUGH SWILLY

After lunch at the hotel the party, joined by the members and lady friends of the local association, set out by motor coach for Lough Swilly. It was a warm, sunny afternoon and they thoroughly enjoyed the run to Buncrana, and along the Lough side to Dunree Fort. At the Fort the party were received by the commanding officer, and were taken on an interesting tour of inspection. On returning to the coaches the drive was resumed through some of the wildest and loveliest of Donegal's scenery. The next stop was at Buncrana for tea at the Lough Swilly Hotel, and before returning to Derry the party received a visit from the Mayor of Derry, Senator Sir James Wilton, who travelled specially from Limavady to extend a welcome.

THE PRESIDENT of the Society, proposing a vote of thanks to Sir James and the Derry Chemists' Association for their kind-ness, said the members of the Council and their friends always looked forward to their annual outing to Derry with the greatest eagerness, and this year they had enjoyed themselves more than ever, and they had had the company of the kindest and most thoughtful of friends, the members of the Derry Chemists' Association. (Hear, hear.)

MR. WALTER TATE seconded.

Mr. H. Craig, vice-chairman of the Londonderry Chemists' Association, responding, assured the Belfast visitors that there would always be a hearty welcome for them to the ancient city of Derry

THE MAYOR OF DERRY said he had intended to ask the members of the Council and their friends to come to see him at the Guildhall, but unfortunately a prior engagement had detained him all afternoon.

The arrangements for the outing to Donegal were carried out by Mr. Ernest D. Barr (chairman of the Derry Chemists' Association), Mr. D. Chambers (secretary) and Mr. H. Craig.

#### Recent Research

#### Dermal Absorption of Tri-brom Ethanol

D. I. Macht ("Nature," No. 3550, p. 849) finds that tri-brom ethanol readily penetrates the intact skin of rats and mice and causes its characteristic narcotic effects. A solution of tri-brom ethanol crystals in alcohol (95 per cent.) is rapidly absorbed, anæsthesia being effected within fifteen to thirty minutes and lasting for two to three hours. With larger doses, the anæsthesia was followed by coma and death. The minimal quantity of tri-brom ethanol to anæsthetise a 24-gm. mouse was 0.85 c.c. of a 10 per cent. solution. The addition of was 0.85 c.c. of a 10 per cent. solution. The addition of amylene hydrate (as in clinical use) resulted in a smaller dose being required (0.75 c.c. with solution of tri-brom ethanol to per cent. and amylene hydrate, 5 per cent.). This is obviously due to the synergism produced by combining amylene hydrate with the drug.

#### Nature of Acquired Tolerance to Alcohol

H. W. Newman and A. J. Lehman ("Journal of Pharmacology," 62, 3, p. 601) demonstrate by experiments on dogs that prolonged imbibition of alcohol is effective in developing

a tolerance to alcohol so that muscular co-ordination is better (with same blood-alcohol concentration) than before habituation. Such acquired tolerance is not due to decreased penetration of alcohol into the brain or to more rapid elimination therefrom. It is the cells of the central nervous system that become able after habituation to function more efficiently at a given alcohol concentration.

#### A New Vitamin D

C. E. Bills and co-workers ("Journal of Biological Chemistry," 123, 3, Scientific Proceedings, XXXII, p. x.) have obtained a new vitamin D by molecular distillation of two tons of cod-liver oil. The vitamin-D fraction of lowest boiling point on re-distillation yielded a working quantity of the most volatile vitamin D with a concentration about ten times that of the original oil. However, this form of vitamin D was markedly inferior, no calcification being produced in rats except when administered at levels several times higher than that of the cod-liver oil. It is suggested that absence of the usual side chain may cause the new vitamin D to differ from the chemically known forms.



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#### Imperial and Foreign News

#### Australia and New Zealand

CODE OF ETHICS.—One of the subjects which will come up for discussion at the meeting of the Pharmaceutical Association of Australia and New Zealand to be held at Canberra in January 1939 will be a code of ethics for pharmacy.

DIRECTOR OF PHARMACY.—The appointment of Mr. E. R. Myers as Director of Pharmacy under the New Zealand Pharmacy Plan (C. & D., May 7, p. 526) has been confirmed. Mr. Myers is already chairman of the Industrial Committee. For over eighteen years he has been associated, on the permanent staff of the Department of Health, with the administration of the Food and Drugs Acts. He was an advisory member of the original committee set up under the Industrial Efficiency Act to explore the possibilities of a plan for pharmacy. A New Zealand correspondent writes: "This is one step further in the rationalisation of N.Z. pharmacy and generally chemists will be well pleased, for they have been unable to make any plans in case of nullification."

#### Malta

Mr. John Gatt, Ph.C., Strada Prigione, Vittoriosa, has opened a new pharmacy under his own name at 26 Sda. Porta Maggiore, Vittoriosa.

CHEMIST FINED.—Mr. J. Vassallo, Ph.C., Vassallo's Pharmacy, Sliema, was bound over as a first offender in the Malta Court of Judicial Police, recently, for absenting himself from his pharmacy without leaving another pharmacist in charge.

#### **United States**

Flückiger Medallist.—The German Apotheker Verein has awarded the Flückiger medal to Dr. Henry Hurd Rusby (a former president of the American Pharmaceutical Association and for many years a Professor in and Dean of the New York College of Pharmacy). The medal, which was struck in honour of Herr F. A. Flückiger, is awarded every five years to an outstanding pharmaceutical investigator. Dr. Rusby has previously been awarded the Remington Medal and the Hanbury Medal of the Pharmaceutical Society of Great Britain.

Second U.S.P. Supplement.—At a recent meeting of the United States Pharmacopæia Board of Trustees authority was given for the publication of the Second U.S.P. XI Supplement, which it is hoped will be released on January 1, 1939. Preparation for the Supplement has been proceeding for some months and subcommittee chairmen will shortly be in a position to submit reports on a number of revised texts. The subcommittee on scope is considering the admission of a number of additional drugs. It is expected that the revised or new monographs will be submitted in the form of proofs to members of the Committee of Revision and given wide publicity. After publication, a public hearing will be granted at which members of the Executive Committee responsible for revised texts will be in attendance. A conference with officials of the Food and Drug Administration and the Public Health Service will follow, after which members of the Revision Committee will have an opportunity to vote on the text.

#### Our Cameraman at Empire Exhibition

HE Empire Exhibition at Glasgow, which was opened by H.M. the King, accompanied by H.M. Queen Elizabeth, on May 3, is now completely launched. It has received what may well be described as an excellent Press, not only in the daily newspapers but also in the weekly publications which specialise in handsome illustrations. We have on several occasions made mention of the Exhibition, but from the point of view of visitors to Glasgow, when the Edinburgh Conference is held in September of this year, we have now endeavoured to select a series of exhibits, particularly in the Palace of Industry, which have been arranged by manufacturers whose names are well-known in the drug trade.

#### Some of the Exhibitors

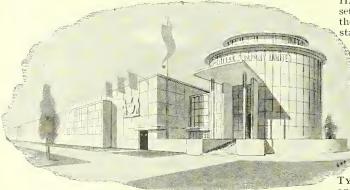
In the chemicals, drugs, perfumery, cosmetics and chemists' supplies section, Boots Pure Drug Co., Ltd., are exhibiting fine chemicals, especially research chemicals and pharmaceutical preparations. In addition to this interior display devoted to the manufacturing side of the business, Messrs. Boots have

also a retail branch, with an illuminated pylon on either side, at which purchases may be made by the public (see page 720). Cromessol. Co., LTD., are exhibiting household spraying outfits, moth killers, non-staining vermin destroyers, etc. Fairy Dyes, LTD., are showing a range of dyes in addition to Morning Pride brushless shaving cream, which has already become an established seller. The IGLODINE Co., LTD., are exhibiting Iglodine antiseptic. Thomas Reid & Sons, LTD., show Bamyl antiseptic pine tar soaps, shaving soap and soap novelties. At the stand of ROZALEX, LTD.,

Iglodine antiseptic. Thomas Reid & Sons, Ltd., show Bamyl antiseptic pine tar soaps, shaving soap and cream and soap novelties. At the stand of Rozalex, Ltd., demonstrations are given in the use of Rozalex hand cleanser. Sister Laura's infant and invalids, is well displayed, and a nurse is in attendance for the benefit of inquirers. The Distillers Co., Ltd., have a stand in one of the Palaces of Industry, and in addition have a building in the grounds, as illustrated on this page. E. N. Bromage & Co. have an attractive stand of flower perfumes, face powders, talcum powders, etc. The June Hair Waver & Curler Co., Ltd., show their slumber helmets, setting lotions, shampoos and other articles intended for use in the care of the hair. The Scholl Manufacturing Co. have a stand at which free foot tests and advice are given, and in

addition Dr. Scholl's foot aid remedies and appliances are prominently displayed. The National Cash Register Co. of Canada, Ltd., have a stand in the Canadian Pavilion, as have also the Dominion Rubber Co., and the Seiberling Rubber Co. of Canada, Ltd., both of whom are showing hot-water bottles (among other goods). In the Australian section, W. J. & F. Barnes Pty., Ltd., display Australian honey. Among the other exhibitors whose products are familiar to the trade are the British Aluminium Co., Ltd.; Nil-Mist Laboratories (see page 730); W. & T. Avery, Ltd.; Bakelite, Ltd.; L. Rose & Co., Ltd.; General Electric Co., Ltd.; George Salter & Co., Ltd.; Imperial

TRIC CO., LTD.; GEORGE SALTER & CO., LTD.; IMPERIAL TYPEWRITERS, LTD.; JANE SEYMOUR, LTD. (toilet products), and Orel-Micro Electric Ltd. (Hanley Clipshave). The Exhibition remains open until October.



Stand of the Distillers Co., Ltd.



#### THE CHEMIST AND DRUGGIST Special June 25 Issue 1938





Jane Seymour, Ltd.



Dominion Rubber Co., Ltd.

# Sister Lauras Food Modres Hist Kar Lauras Food Modres Historia Food Modres Hist

#### EMPIRE EXHIBITION, GLASGOW, 1938

Left, Sister Laura's Infant and Invalid Food Co., Ltd.



Above, Bakelite, Ltd.

Left, British Aluminium Co., Ltd.



W. J. and F. Barnes Proprietary, Ltd.



Seiberling Rubber Co. of Canada, Ltd.

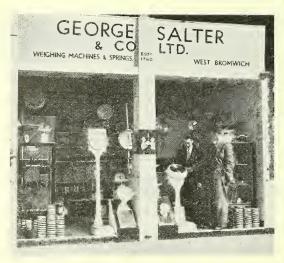


General Electric Co., Ltd.



### THE CHEMIST AND DRUGGIST Special June 25 Issue 1938







George Salter & Co., Ltd.

L. Rose & Co., Ltd.

#### EMPIRE EXHIBITION



Nil-Mist Laboratories



Boots Pure Drug Co., Ltd. (retail shop)



GLASGOW, 1938

Rozalex, Ltd.



W. & T. Avery, Ltd.



Orel-Micro Electric, Ltd.



Thomas Reid & Sons, Ltd.







Cromessol Co., Ltd.





National Cash Register Co. of Canada, Ltd.

# **EMPIRE**



Distillers Co., Ltd.



June Hair Water Waver & Curler Co., Ltd.

GLASGOW, 1938

# **EXHIBITION**



Fairy Dyes, Ltd.



Scholl Manufacturing Co., Ltd.



F. N. Bromage & Co.



Imperial Typewriter Co., Ltd.







# Witch Hazel

### A PRODUCT WITH A THOUSAND USES

HE production of witch hazel in the United States of America is one of the leading, modern industries of New England. The bush or small tree (Hamamelis virginiana Linn) from which the distillate is derived reaches a height of from five to fifteen feet, and consists of several crooked branching trunks from the same root, from four to five inches in diameter, with a close white wood, and with flexuose branches which are covered with a smooth brown or grey bark somewhat fissured and whitish and smooth internally. It flourishes profusely without cultivation in the North-Eastern States, principally in Connecticut, and is also found in territory from New Brunswick to Minnesota and southward to Florida and Texas. It is stated to have been introduced into California. The true Hamamelis belongs to the Hamamelaceæ genus and is the only species found in a wild state in the North-Eastern States of America. It grows best in low, moist but well-drained ground. Experience has shown that the shrub does not thrive on transplanting to different climates and surroundings. It is in no way related to the common hazel (Corylus avellana), which it resembles only in being a branching shrub with somewhat similar leaves. The common hazel also prefers damp, stony ground and is cultivated in most parts of the world, chiefly as a decorative and flowering shrub.

# Late Flowering Peculiarity

The leaves of the bush are obvate or oval, wavy-toothed and somewhat downy when young. The seeds are black and shining externally, white, oily and farinaceous within, and edible like the nut of the common hazel. The shrub is remarkable for the late appearance of its yellow flowers, which expand in October and November after the fall of the leaves, and continue in bloom until the weather becomes very cold in the winter. The flowers grow on short pedicles, three or four in a cluster, with an involucre of three ovate leaflets; have a four-cleft calyx and four long linear greenish-yellow petals, three-quarters of an inch long, curled and twisted. The ovary is ovate with two short styles, the stigmas are obtuse. The fruit is a two-beaked two-celled woody capsule, each cell containing a single seed. The fruit ripens in October and November at the same time as the blossom appears, and is in each instance the product of a blossom of the previous year.

Various districts apply varying names to the shrub, such as winter bloom, snapping hazel, striped alder, spotted alder tobacco wood and wychhazel. The term "snapping hazel" is applied to it on account of the loud explosions that occur when the bark is burnt and by the bursting of the seed pods. The latter fracture with so much energy that the seeds are usually thrown for a distance of thirty to forty feet from the fire.

## Legendary Origin

The history of the origin of witch hazel is bound up with the North American Red Indians. The medicine men of the redskins, who have now practically vanished from the New England territory, for many generations made a crude con-coction by brewing the bush in an open pot over their wigwam fires. Even in those early days its healing qualities were recognised. The external application of the brewed liquid was the first-aid method adopted for cuts, bruises, sprains and general inflammatory conditions. There are few products recognized which company interesting legands have spring upgarding which so many interesting legends have sprung up. Amongst those recorded is one to the effect that the Indian "Medicine Man," seeking out new magic powers of healing, chanced on the bush and noticed that it blossomed after the fell of the leaf. This striking acquire as different for the fall of the leaf. This striking peculiarity, so different from the general rule, led him to believe that the "Great Spirit" had in this way revealed to him a bush that possessed magic properties. He collected a supply of twigs and boiled them in a cauldron. Suddenly, the legend records, the phantom-like form of a beautiful maiden appeared in the steam from the cauldron. This spirit was supposed to be in the witch hazel and to her magical aid was credited the curative qualities of the crude product of the Indians. Later, the first white settlers in America found this simple remedy more effective and broadly useful than some of their own medicines. They, in turn, commenced making their own requirements in much the same way as the red Indians. In the early years of the nineteenth century a missionary to the Indians, a Mr. Hawes, made an exhaustive study of the healing properties of a distillation made from the twigs. It is claimed that the production of witch hazel on a large scale was carried out by Dr. Theron Pond, of Clinton, Connecticut, in 1846. A photograph of the original works, a wooden structure, is reproduced on p. 725. The same process of manufacture is carried on to-day in the modern factory buildings which have been added. From that time onwards the manufacture of witch hazel on a commercial scale has gradually been developed until,

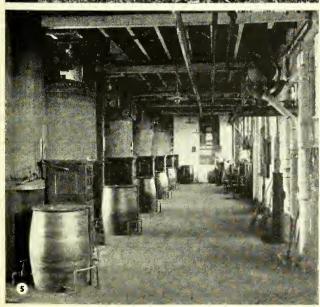














# WITCH HAZEL INDUSTRY

- 1. Cutting and loading Witch Hazel in the woods.
- 2. Making oak barrels in the cooperage.
- 3. Chopped brush ready for loading into the stills.
- 4. Specimen Witch Hazel bush in full bloom.
- 5. Battery of Stills at Essex, Connecticut. The distillate is run into barrels and then into large glass-lined storage tanks.





to-day, it is produced in hundreds of thousands of gallons under scientific and sanitary conditons, with sales in America and throughout the world still increasing.

### Modern Production

Most of the commercial scale production of the distilled extract is now carried on by modern methods in the State of Connecticut, where abundant supplies of the shrub are available. The distilling season starts in the late autumn after the leaves have fallen and the plant breaks into blossom. The brush is only used while the plant is in the dormant state, so the distilling extends from that period until the spring months, when the leaves begin to appear. The brush is cut in the woods and hauled to the distilling plant. There it is run through chopping machines that cut and tear it into small fragments. The prepared brush is then ready to be loaded into the stills as required. The stills themselves, with tapering sides, resemble huge flower pots, standing about 10 feet high with a diameter of approximately 5 feet. They are hung on swivel posts for the purpose of being easily emptied. Each still is built to hold approximately one ton of chopped brush. Asbestos covering renders the stills inanimate looking, so far as outside appearances go. Once the harvesting of the brush has commenced, distillation is carried on twenty-four hours of the day. The copper crowns of the stills swing loose at regular intervals throughout the day and night to receive fresh loads of brush. For the remainder of the year the stills are hermetically sealed. In order to comply with the standard specifica-tion 9½ lb. of "brush" is required to make one imperial gallon of witch hazel. The leading distillers use as much as 24 lb. of the chopped raw material to the imperial gallon of the finished product, and in some instances even this quantity is exceeded. Double distillation is a feature of some producers. The witch hazel from the stills is either run into a battery of large glass-lined storage tanks or into oak barrels. In the distillery of the leading producers in Connecticut these tanks are 65 feet in length and about  $9\frac{1}{2}$  feet in diameter. From these glass-lined storage tanks, it is drawn off into paraffin-lined barrels prior to shipment to all parts of the world. The matured product from the glass-lined tanks is almost water white, while that stored in oak barrels is of a pale straw

The distilled extract contains a volatile oil which, in its condensed form, has a light greenish colour with a strong, pungent odour. Condensed, it is in the form of a soft grease, readily liquefying at body temperature. A difference in the odour suggests there is some constituent in the natural oil which is more soluble in water than the remaining constituents of the oil. Chemists have expended much time and expense over a period of years in endeavouring to identify the active constituents of witch hazel oil, but have so far met with little or no success. It is practically the only volatile oil that has not been identified. It cannot, so far, be produced synthetically, nor can a similar odour be obtained by compounding. The United States of America National Formulary VI states that the distilled extract is clear and colourless, having a characteristic odour and taste. The specific gravity is between 0.979 and 0.982. It is free from mucoid or fungus growths, does not have an acetous odour and is neutral or only faintly acid to litmus paper. The distilled extract does not respond to the tests for methanol (wool alcohol), acetone, or isopropyl alcohol, when carried out as directed under Spiritus Frumenti in the United States Pharmacopæia XI. It is also negative to formaldehyde.

## Early Clinical Investigations

Among the observers who studied the distillate in its early days may be mentioned the eminent French therapeutist Dujardin-Beaumetz. He used it both internally and externally, using the tincture internally in doses of ten to fifty drops every two hours. He observed that the astringent action of the preparation was especially effective upon the muscular fibres in the walls of the veins. In its external use he concluded that a portion of the beneficial effect must be attributed to the action of the alcohol contained in the tincture. Its effect

in relieving the pain and congestion in hæmorrhoids was very decided. For varicose conditions of the lower extremities, the pharynx and larynx, also for hæmostatic and sedative action in general, his results were not equal to those which have been obtained by others.

A case is narrated by Cazenave de la Roche in which the tincture was given internally in doses of twenty-five drops in an aggravated case of hæmoptysis occurring in a phthisical subject with gouty complications, relief being described as prompt and efficient.

Roland Smith regarded *Hamamelis* as one of the most valuable hæmostatics, especially in menorrhagia and hæmoptysis.

Fountain speaks of having used the tincture for many years to relieve hæmorrhage from different sources, especially from the lungs, intestines and stomach. (Such indications are now, of course, obsolete.)

### Toilet and Cosmetic Uses

IN THE BATH.—One or two teaspoons of witch hazel is refreshing and invigorating.

FOR THE HAIR.—Rubbed into the scalp witch hazel will correct greasiness, dryness or dandruff.

MOUTH WASH AND GARGLE.—Witch hazel cleanses the palate, preserves the teeth and strengthens the gums.

AFTER SHAVING.—A soothing after-shaving lotion. Sterilises cuts and pimples and generally tightens up the skin.

DEODORANT.—Witch hazel is effective, closing the pores and removing odours.

OILY SKINS.—Dissolve one teaspoonful of boric acid in half a pint of witch hazel; apply two or three times daily.

Wrinkles.—These with other lines on the face may be modified by the application twice daily of a lotion consisting of one teaspoonful of boric acid to a pint of witch hazel.

Base for Make-up.—Dissolve half-teaspoonful of boric acid in 8 oz. of witch hazel and add half-teaspoonful of glycerin. Apply lotion and allow to dry before using powder.

Complexion.—Regular application of witch hazel will quickly tone up the skin, remove roughness and close pores.

EYE LOTION.—Dilute witch hazel with an equal part of water. Apply night and morning.

Sunburn.—An application of witch hazel will relieve

FOOT LOTION.—Witch hazel takes out the burn and sting and gives relief in cases of swollen feet.

Witch hazel is used as an ingredient in a wide range of highclass toilet and cosmetic proprietary articles. It is also marketed in this country under various brand names, packed in bottles.

# Simple Uses in First Aid

Bruises and Cuts.—Cleanse the affected part thoroughly with hot water and bandage over a dressing of absorbent cottonwool moistened with witch hazel.

SLIGHT BURNS AND SCALDS.—Cover affected part with a piece of clean soft linen; keep cool and moist with frequent applications of witch hazel. Severe cases should, of course, receive medical attention.

Sprains and Stiffness.—Apply witch hazel to the affected parts; massage affected limb from below upwards.

HAY FEVER.—Dilute witch hazel with an equal part of hot water and use as a gargle three or four times a day. In addition, with the head thrown well back, the upper eyelid should be raised and a few drops allowed to fall upon each eye. Repeat every hour or two until the symptoms are improved.

Lumbago.—Apply witch hazel freely to the back and carefully rub in. The friction will cause the distillate to be absorbed by the skin.

RHEUMATISM, SCIATICA, ETC.—Rub gently but persistently the joints affected and also the surrounding muscles, witch hazel being applied freely. It is sometimes desirable to pack





round the joint cotton-wool moistened with witch hazel, keeping it in place with a bandage. In the case of sciatica massage the muscles affected with witch hazel, applying a rolling motion, using both hands.

ABSCESSES, BOILS AND ULCERS.—When first observed, rub the part and the surrounding skin thoroughly with absorbent cotton moistened with witch hazel, then cover with a pad of cotton, also wet with witch hazel, and secure with a bandage. Repeat this dressing every two or three hours. Remove the discharge several times daily with dry cotton and dress as before.

CHILBLAINS.—Hands and feet affected should be thoroughly rubbed with witch hazel before retiring.

Headaches.—Bathe face and temples with witch hazel with sponge or cotton-wool pad and rub the scalp with the fingers moistened with witch hazel.

CATARRH, COLDS.—Wash and cleanse the nostrils thoroughly with hot water, removing all scales and mucus. To two table-spoonfuls of witch hazel add an equal part of hot water, and holding the head well back inject from a nose syringe or an atomizer, first in one nostril, then the other. Repeat this operation several times each night and morning

Sore threats, etc.—Gargle every two hours with witch hazel diluted with two parts of warm water. Apply to the throat a compress moistened with witch hazel and bind round with a flannel bandage.

STINGS.—Wash affected part with hot water, saturated with soda, after which injured part should be covered with cotton-wool soaked with witch hazel; this dressing should be frequently changed. Scratches by animals, and by thorns and briars and poisoning by poison-ivy will call for the same treatment as stings.

TOOTHACHE, NEURALGIA, ETC.—Pack round tooth with cotton-wool soaked in witch hazel and renew every half-hour. In the case of neuralgia massage the painful part with the fingers moistened with witch hazel.

A number of proprietary medicines, lotions, ointments, emulsions, etc., contain witch hazel. With the addition of a small percentage of arnica it is also in general use for veterinary purposes.

# Witch Hazel Formulas

Skin	TAN	NING	Long	N
Acid. bor		× •		gr. 20
Liq. ham				31
Aq. rosæ				311.
Alcohol. Ag.			d	3ss.
Aq.			au	3viij.

Astringent Lotion	
Zinc. phenolsulphonat Sol. Bordeaux B., B.P.C.	gr. 3
Liq. hamam. ad	3)

' WITCH	HAZEL	JELLY		
Acid. boric.			gr.	15
Tragacanth.			gr.	21
Glycerin.	× •		10	m
Liq. hamam.	• 1	ad	31	

Astringent	EYE	Lotion
Liq. hamam.		. 3ìj.
Sodii chlor.		gr. x.
Pulv. borac.		gr. xv.
Glycerin.		3SS.
Aq. dest	* \	ad zviij.

NASAL C	CATARRH	Spra	Y
Liq. adrenali	n (1-100	o)	m x.
Chlorbutol.			gr. 2
Alcohol			3ss.
Liq hamam.			3ij
	× •		3jss.
Aq. dest	V *	ad	<b>3</b> j
Glycerin Aq. dest			

	WRINKLE	Rem	OVER	
	hamam.			3ss.
				gr. I
	benz	× •		gr. 5
	coloniensis			
Aq			ad	3j.

Calami	NE LO	TION	
Calamin.			gr. 15
Zinc. oxid.			gr. 10
Glycerin.	• 5	٠.,	т 30
Liq. hamam.		ad	$3J_{c}$

Witch I	HAZEL	FOAM	
Acid. stearic.			10.0
Triethanolamin			2.0
Glycerin .		× +	2.6
Liq. hamaın.			50.0
Aq. dest	• •	ad	100.0

After-Sha	VE	Lotion		
Spt. coloniensis.			3j.	
			3j	
Menthol		× •	gr.	2
Sod. benz.	٠.		gr.	5

Hand	Lono	N	
Tragacanth.	× •		0.75
Lìq. hamam.			6.25
Glycerin.			6.25
Alcohol	× •		6.25
Tinct. benzoin.		٠.	0.4
Ol. rosæ			0.75
Aq. dest		ad	100.0

SOLUTION FOR CLEANSING	Pads
Liq. hamam.	3j.
	gr. 10
	31
Glycerin.	M 10
Ag ad	311

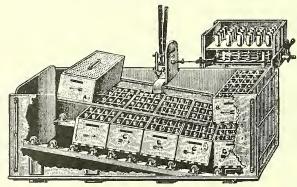




THE CHEMIST AND DRUGGIST Special June 25

# Bottle Washing Machinery

HE problem of bottle cleaning is one to which the majority of users of bottles have to give serious thought. In all branches of industry where bottles are used, one of two questions arises: (a) the rinsing of new bottles, (b) the washing of used bottles. In many instances both these factors have to be considered, but in all cases it becomes imperative for the bottler to arrange a systematic process of cleaning, and to equip himself with an up-to-date plant, if he wishes to minimise labour and the cost of up-keep of a bottle-washing department. We have recently had the opportunity of reviewing the position of bottle washing as it affects the manufacturing chemist and the retail pharmacist, during a visit to a factory of Thomas Hill Engineering Co (Hull), Ltd., one of the leading manufacturers of bottle-washing machinery, and who have specialised in this type of plant



Early type of upright soaking machine—made in 1885

for some sixty years. Here we inspected a wide range of machines which are available for many different purposes—from a small hand-operated bench jet to a master machine capable of handling about 300 dozen bottles per hour—in various stages of construction, and examined the principles involved in modern washing processes. These include four distinct operations, (1) soaking in a hot alkaline solution, (2) rinsing, (3) brushing—internally and externally, (4) final rinsing with clean water. To give the reader a clearer conception of the practical details involved in these different stages, separate consideration is given to the more important points in each one.

### Soaking

This is perhaps the most important stage in the washing, and upon its efficiency depends the success of the whole process. Soaking by complete immersion is made possible by specially constructed trays in which bottles of a particular size are enclosed and are held in position to avoid any rolling about. The trays are arranged on a rotary system, whereby each soaking tank can accommodate four of them, as can be seen from the illustration on page 728, Fig. 1. When they are submerged the bottles are kept in practically an upright position, so that the air is ejected and the solution can enter freely. In the four-tray machine, which is a standard pattern, three trays are totally submerged while the fourth is above the surface of the liquid and is being emptied and refilled with bottles. mechanical cleaning of the bottles takes place as the soaking solution enters, causing agitation through displacing the air. It is important to note that in the modern type of plant described, at no stage of the soaking operation do the operator's hands enter the soaking solution, so that strong hot alkaline solutions may be used with safety. The nature of the detergents used in the soaking solution is discussed later. After soaking, the design of the tray is such that on emerging from the solution, an automatic tilting device turns it over, allowing the bottles to be completely emptied, and all loose deposits to be discharged into the tank. The emptying and revolving of the trays can be carried out quickly and in safety, as there are no divisions or other obstructions in them. The design of the lid of the trays precludes any possibility of the bottles floating while being submerged and also when the lids are open they prevent an accidentally dropped bottle from falling into the soaking tank. The trays and soaking tank are heavily galvanised so that protection from rust and corrosion is afforded. The solution in the tank is maintained at the correct temperature by different systems—one being by an adjacent heating boiler connected to the soaking tank, whereby a constant circulation is maintained, and another by steam.

### Rinsing

It is to be emphasised that no matter what particular kind of rinsing or brushing apparatus is employed, the work cannot be completely satisfactory unless the soaking has been adequately carried out. The bottles from the trays are passed through a fresh water tank placed at the side of the soaking tank, and the rolling action here assists in the process of swilling them, and partly filling with fresh water.

### Brushing

Practical experience has shown that even after adequate soaking in caustic solution, rinsing alone of the bottles is not sufficient. Scrubbing with friction is required both inside and outside the bottles to remove any residual matter and films of The outside scouring is effected by high-speed revolving brushes, which run partly submerged in the scrubbing tank, ensuring a good supply of clean water for the operation. The inside cleaning of the bottles is carried out by a revolving brush specially designed to reach all corners of the bottles—sufficient water remaining in the latter from the fresh water tank. The inside brushes are made to suit a wide range of shapes and sizes of bottles and can be adapted to a machine without difficulty. The bottle is merely passed to revolving brushes, the outside ones being half submerged in fresh water. The inside brush lies on the upper wall of the bottle and as it revolves the bottle is automatically held safely in position throughout the process. On the larger types of plant there are two sets of brushes allowing of a constant operation; whilst one set is cleaning a bottle, exchange of bottles is taking place on the other side. One operator can work the two sets of brushes, taking bottles from a tank, passing them individually to the brushes, removing them and placing them on the rinsers. The inside and outside brushes revolve in opposite direction at specially controlled speeds consistent with the best results, and are so arranged that when disengaged from the bottles they do not come into contact with each other. Under normal conditions of working on these particular machines the outside brushes last, on an average, for twelve months, when they can be refitted with new bristles, and the inside brushes can be maintained on the most economical basis by having them made specially to fit each particular shape and size of the bottle. In this way bottles can be passed on to each brush easily and withdrawn without jamming or fear of damage to the brush or danger to the operator.

### Final Rinsing

On completion of the necessary brushing operation the bottles are placed neck downwards on a rinser, resting on a platform or other guide to allow the jets to enter the mouths of the bottles. On the release of a valve, each bottle receives a rinse by a powerful stream of cold water at full mains pressure. Many different types and capacities of rinsers are available for fitting to the machines and guides can be fitted to accommodate all kinds of bottles—self-centring devices being also available as it is necessary to ensure a vertical position of the bottle. Whatever type of rinser is used ample time for draining is allowed. In the case of the hand revolving type, the rinsers are divided into two sections, when one is filled with



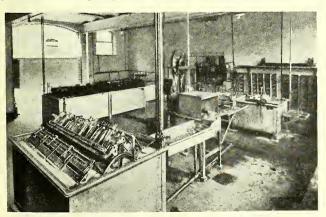


bottles, the rinser is revolved bringing the other section round for the loading. A valve is provided, which enables the water to be controlled instantly by the operator. In the power-driven type of rinser, the hand valve is omitted and the rinsing is carried out automatically as the rinser is revolved. The water consumption is low and also the water which drains from the rinsea bottles runs back into the brushing tank. It will be seen that throughout the whole process no bottle is subjected to any violent pressure or sudden change in extreme temperature and that a thorough cleaning is ensured by the different intricate stages involved.

Many bottlers examine bottles for cleanliness when they are wet. This is not a good test; they should be examined when perfectly dry, because it will often be found that a bottle which looks spotless when wet, has dried showing a series of dirty patches which are the remains of thin slimy films that can only be removed by submerged soaking in hot caustic solution followed by a thorough brushing and rinsing.

### Detergents

In contrast to the old method of cleaning bottles and removing hard deposits by the "shot" method—whereby a quantity of shot was shaken in each individual bottle—modern bottle-washing plant makes use of chemical detergents which are not only far more successful in results but reduce considerably the time spent on each bottle. As a result of extensive practical tests during a long period of years, it is considered that caustic soda is the best detergent for standard From time to time new proprietary detergents appear on the market, which are composed of different mixappear on the market, which are composed of different mixtures of soap and caustics. Caustic soda is a powerful germicide, it produces no objectionable smell in the hot solution, all solid matter is precipitated to the bottom of the tank, and the surface of the solution remains free from scum. The caustic solution which has been found the most satisfactory is made as follows:—8 lb. of caustic soda is dissolved in water in a separate vessel—never in the soaking tank—and the solution made up to eight gallons; two gallons of the solution are added to the water in each soaking tank. Slight tion are added to the water in each soaking tank. Slight modification of this strength is sometimes necessary-for hard waters, rather stronger solutions are advisable, and for soft waters a weaker solution can be used. In certain cases, of course, where a number of very greasy bottles have to be dealt with, very much stronger caustic solutions are necessary, and some users of this plant employ separate tanks for this purpose to give the bottles or jars a preliminary soaking in the solution. Bicarbonate of soda can also be added with advantage to the soaking solution in some cases. This is said to aid the removal of grease and to add brightness to the bottle. Where the plant is in constant use many users adopt the practice of adding a quantity of caustic soda each day to the



[By courtesy of J. Woolley, Sous & Co., Ltd., Manchester

Modern bottle-washing plant in a pharmaceutical factory

soaking solution to allow for any loss in strength. In dealing with returned drug bottles the nature of the residue determines

the detergent necessary. An essential matter in the success of the soaking operation is the temperature at which the solution is kept. Experience has shown this to be 120° F.

### Wide Range of Bottles

Many large users of bottles appear to hold the view that their numerous different types of bottles could not be treated by one machine; hence have not considered the question of the large-scale bottle-washing plant. Inquiry into the question will reveal that bottle-washing plant manufacturers can provide machinery to deal with any type and shape of vial, bottle or jar. The method of arrangement adopted in one factory can be seen from the illustration in the previous column. When a standard equipment such as this is installed the many different





Range of drug bottles dealt with in washing machinery

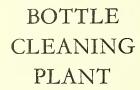
sizes and shapes of bottles and jars met with in the drug trade can be accommodated by suitable adjustment or interchanging of the bottle trays in the soaking tank. These trays are constructed so that they can hold false backs, which slide into position at the back of the tray to reduce its width when dealing with small bottles. As evidence of the wide range of usefulness of this modern type of bottle-washing machinery, it is of interest to note that there are town councils in this country which have installed plant of this nature to wash for resale the thousands of different waste bottles which their cleansing and refuse collection departments accumulate. Furthermore, one large concern of manufacturing chemists in this country are understood to have plant in use for more than 230 different types of bottles. The illustration above indicates some of the kinds of bottles used in pharmaceutical factories which may be dealt with by the washing machines described—the larger type of machines being capable of dealing with bottles of a capacity up to 120 ounces.

# Description of Plant

The bottle-washing machine shown in Fig. 1, page 728, embodies all the fundamental cleaning processes which have already been outlined, and is particularly suitable for use in pharmaceutical factories. On the left-hand side of the illustration is the soaking tank, showing the uppermost bottle tray open, and the rotating gear which turns the four trays in the tank. The rinsing tank is supported by the soaking tank and the brushing tank, and is supplied with clean water by an overflow from the latter. The bottle in the brushing tank is resting on the two revolving exterior brushes, while the internal brush is also in operation, and the power to propel the brushes is supplied by a ½ h.p. electric motor. Next to this tank is a rinsing platform, which will hold eight bottles over the rinsing jets. This particular illustration shows a left-handed operation







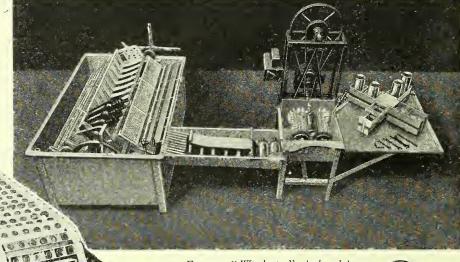


Fig. 2.—Fully automatic master machine

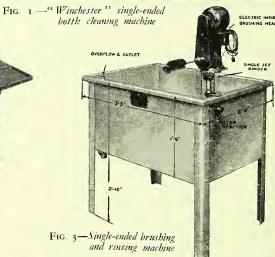


Fig. 4.—Power rotary rinser for sprinkler bottles

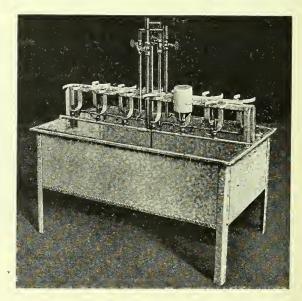
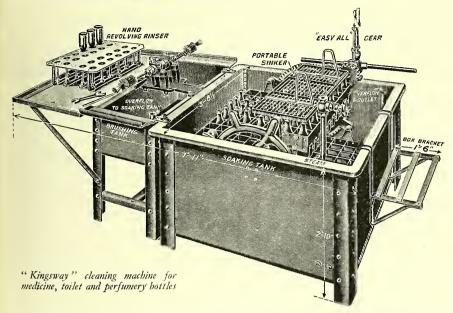


Fig. 5.—Stone jar cleaning and sterilising machine



THE CHEMIST AND DRUGGIST Special June 25



can be supplied. The machine requires three operators. Fig. 2 illustrates a large-scale fully automatic bottle-washing machine with an output of about 300 dozen bottles per hour. Bottles to be cleaned are fed by the operator onto the rack, seen in the foreground, and at short intervals six bottles side by side are automatically pushed onto the moving chain which travels throughout the entire machine, where soaking, brushing and rinsing operations are carried out continuously. The clean bottles are delivered on to the platform seen at the side of the rack. In contrast to this is a small-scale brushing already been soaked, Fig. 3. It is fitted with water inflow and outlet connexions, a high-speed brush driven by a  $\frac{1}{6}$  h.p. electric motor and a single-jet rinser, onto which the bottle is placed neck downwards, the pressure on the rinser rest opening the water valve and releasing a powerful stream of clean water.

The supply of water is cut off on releasing the pressure on the bottle. The machine shown in Fig. 4 is specially constructed for the rapid rinsing of sprinkler bottles at the rate of 240 dozen per hour by means of twenty-four jets. Each bottle receives three fresh-water rinses. The water retained in the bottle after each rinse is ejected by compressed air, which is blown through the water jet, this air being itself washed before entering the bettle. As air representations that the state of the entering the bottle. An air pump with filter is fitted so that the process can be carried out with complete cleanliness. If it is desired to rinse with hot water or any other solution than cold water, the extra pump and feed tank as shown, with heating element can be supplied. Fig. 5 illustrates a stone jar cleaning and sterilising machine used mainly for half- and one-gallon jars. The machine comprises a galvanised steel tank with combination overflow outlet, and a steam silencer is provided to heat the solution in the soaking tank so that the jars can be soaked prior to treatment. Cold or hot water or steam can be used for the rinsing. Interchangeable clips can be supplied for half- and one-gallon sizes for working the two sizes intermittently, the change-over occupying only a few minutes. The illustration shown is a double-ended machine, but single-ended machines can also be supplied to accommodate six jars.

# Double-Ended Cleaning Machine

The machine shown above is designed specially for manufacturing chemists and is suitable for dealing with large numbers of medicine, toilet and perfumery bottles and small vials. In this machine bottles are soaked in an upright position so that the whole surface of each one is in contact with the soaking solution. The divisional soaking trays supplied with the machine provide separate compartments for large bottles. Galvanised steel baskets can also be fitted for accom-

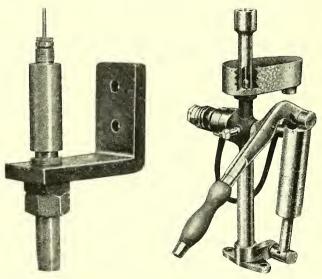
modating small vials or jars which can be packed closely together. The machine will deal with a large range of the smaller type of bottles without alteration to machine parts, and a large output of clean bottles can be regularly maintained without straining the capacity of the machine. The two brushes can be driven by either a steam turbine, or an electric or water motor, the power necessary being about \(\frac{1}{4}\) h.p. The revolving rinser is divided into two sections, each holding twelve bottles, so that one section is being rinsed and removed while the second section is being replenished by the operator with brushed bottles. A special top to hold the bottles securely in position is fitted to the rinser to prevent damage or chipping of the bottles, and to ensure adequate rinsing.

### Single Jet Bench Rinsers

Small-scale rinsers which are suitable for installing in pharmacies, laboratories and hospitals for treating many different types of bottles, and which may easily be secured to a bench or sink, are shown in the accompanying illustrations. The

in the accompanying illustrations. The rinser on the left is fitted to the main water supply and bottles are placed over the fine jet. A slight pressure releases the water at full mains pressure. As the bottle rests on a rubber washer, the air in the bottle is compressed as the water enters; on releasing the pressure on the bottle the water is cut off and the compressed air forces out all the water.

The other rinser shown is also designed for dealing rapidly with bottles having different-sized orifices. The bottle is placed on to the jet provided and the handle pressed down. In this position the water or cleaning solution entering from the base of the rinser will flow continually into the bottle, giving a rinse of any duration. When the handle is raised, the solution is instantaneously and completely ejected by the pressure created in the cylinder by the movement of the handle. This point is of considerable interest, as much time can be lost in shaking water by hand out of a bottle which



Sprinkler bottle automatic rinser

Rapid single jet rinser

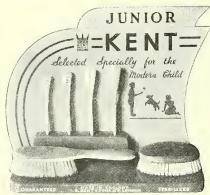
has a very small orifice. This type of rinser can be supplied with hand or treadle movement. It is soundly constructed and is designed to give trouble-free service over a period of many years.



# Trade Notes

Annual outing.—C. J. Hewlett & Son, Ltd., 35 to 42 Charlotte Street, London, E.C.2, inform us that their offices and warehouse will be closed on July 2, when the firm's outing will take place.

Kent junior stand.—Illustrated on this page is a stand



introduced by G. B. Kent & Sons, Ltd., 75 Farringdon Road, London, E.C.4, for displaying children's brushes. Four types of toothbrushes are shown, with a small military satinwood hair brush for boys and a handled brush for girls in blue and pink or sandwich colours of orange and white or blue and white. colour scheme of

the stand constitutes an attractive setting, being in pastel shades of blue and pink.

Venida Parisian Plaques, prepared by Venida, Ltd., 60 Poland Street, London, W.I., are issued for the removal of hair. The plaque is folded in half so that it can be used as a glove. It is claimed that the skin is left soft and velvety after the plaque is used. A counter stand is provided with an initial order. Full details are given elsewhere in this issue.

HAY FEVER.—Kemsales, Ltd., 20 Eastcheap, London, E.C.3, advertise Besorbon, which is issued for the relief of hay fever, colds and catarrh. Supplies may be obtained from all wholesalers or direct. Further details are given in this issue.

Seefax hair pomade, made by Seefax, Ltd., 67 Princes Street, Manchester, is issued for restoring grey hair to its natural colour. It is packed in jars obtainable from the usual wholesalers. Chemists are invited to write for literature and details.

Bath salt bottles and perfume sprays.—The latest designs and novelties in bath salt bottles, perfume sprays, vanity cases, etc., are available from Walter Kay, Ltd., 120 Moorgate, London, E.C.2. Wholesalers and shippers only are supplied.

FITILIN RUB.—Fitilin is the name applied to a revitalising rub which is intended to act as a muscle stimulant for use be-



fore and after exercises, for the prevention and relief of rheumatism, sprains, etc. This product will be nationally advertised in the leading newspapers, and there is an introductory bonus offer. There are three sizes of Fitilin issued. A three-way showcard is available for display purposes. Fitilin is distributed and marketed by Fassett & Johnson, Ltd., 86 Clerkenwell Road, London, E.C.I.

NIL-MIST is the name applied to a product for preventing misting of glass under all conditions. It is packed in four sizes and is

intended for eye-glasses, wind screens, optical instruments, etc. Further details are obtainable from "Nil-Mist" Laboratories, 91 Bollo Bridge Road, Acton, London, W.3. The stand at the Empire Exhibition is illustrated on p. 720.

CHEMICAL WATER PEN.—Selka, Ltd., 109 Charlotte Street, London, W.I, invite trial orders for Aquagraph chemical water pen, which is available in four varieties. Further details are given elsewhere in this issue.

Machinery.—Farrow & Jackson, Ltd., 16 and 54 Great Tower Street, London, E.C.3, advertise screw-cap tightening machines, geared pumps, asbestos disc filters, etc. Estimates and layouts are given free.

Wardonia Blade container.—Thomas Ward & Sons, Ltd., Wardonia Works, Sheffield I, are offering a blade container free with packs of Wardonia blades. Full details are given in our advertisement pages.

TIN BOXES unlimited in variety are available from Tin Boxes, Ltd., Liverpool Buildings, Thornton Street, West Hartlepool. Quotations submitted on application.

Corks and composition stoppers of every description are obtainable from J. A. Hopper & Co., Ltd., 32, 33 and 34 Dock Street, Hull.

FIVE-DAY WEFK.—Edwards Harlene, Ltd., 20 to 26 Lambs Conduit Street, London, W.C.I, have adopted the five-day week and will be closed on Saturdays from July 2.

ADVERTISING OFFER.—Parfumerie Bourjois, Ltd., Queens Way, Croydon, direct attention to a special introductory set

illustrated on this page of perfumery, face powder and vanishing cream. This is simply an advertising offer, and when the limited stock is sold no further supplies will be available.

Casumen Food.
—Prideaux's Pure
Casein and Life
Food Co., Ltd.,
Motcombe, Shaftesbury, Dorset,
direct attention to
Casumen, which is
described as an
easily assimilable



form of nutriment containing the body-building elements of rich English pasture milk. The analysis is given in our advertisement pages. Casumen chocolate milk is also issued.

Infra-red ray Lamps.—Sunbrite, 9 St. Cross Street, Holborn, London, E.C.1, advertise Sunbrite infra-red ray lamps for use in the treatment of rheumatism, lumbago, arthritis, etc. Trade terms will be sent on application.

NEW HAIR REMOVER.—Elnahar, Ltd., 7 Great Marlborough Street, London, W.I, have introduced Ovikal hair remover, which, it is stated, contains no chemicals, requires no preparation and causes no irritation.

Brighton summer school.—With reference to the note on the summer school in pharmacy (C. & D., April 30, p. 495), we learn that entries cannot be accepted after June 30.

VIGGORMALT, made by Viggormalt, Ltd., Hove, Sussex, enables people to brew pure beer, either ale or stout, in their own homes for one penny per pint. The distributors are Fassett & Johnson, Ltd., 86 Clerkenwell Road, London, E.C.I, from whom display stands to emphasise the advantages of Viggormalt home-brewing may be obtained.

HAIR AND BEAUTY FAIR.—An announcement in regard to the Hair and Beauty Fair to be held at Olympia from September 20 to 29 is made in this issue. Sites are already being booked, and full details may be obtained from Exhibition Manager, 33 Great Queen Street, London, W.C.2.



THE CHEMIST AND DRUGGIST Special



# Trade-Mark Applications

The figures in parentheses refer to the classes in which the marks are grouped. A list of classes and particulars as to registration are given in "The Chemist and Druggist Diary and Year-Book," 1938, p. 302.

(From "The Trade Marks Journal," June 1, 1038)

"Crestex"; for all goods (39). By Cresta Products, Ltd., Devonshire Works, Dukes Avenue, London, W.4. 585,251.

"Woodland"; for all goods (47) (48). By The Erasmic Co., Ltd., Bank Quay, Warrington, Lancs. 585,051/2. (Associated.)
"Constance"; for perfumes and lipsticks (48). By Lanvin Parfums, 14 Rue Boissy D'Anglas, Paris, France. 582,548.
"Twelve Trees" on design of avenue of trees; for sachets for waving the hair (48). By The Twelvetrees Manufacturing Co., 97 Queen Victoria Street, London, E.C.4. 583,634.

"Consort"; for perfumery, excluding soap (48). By Martha L. Steen, 2 Wellfield Avenue, London, N.10. 584,833.

"ODO-MENTO"; for perfumed soap (48). By Baker's Medicine Co., Ltd., 58 Spelman Street, London, E.I. 584,966.

"Manneguin"; for perfumery (48). By Anphyl Products, 1 South Street, Rochdale, Lancs. 585,214.

"Mitigal"; for all goods (48). By Bayer Products, Ltd., 31 Basing-hall Street, London, E.C.2. 585,238. (Associated).

### APPLICATION AMENDMENT

The specification for "Menopax" in Class 3, No. 582,228, by Clinical Products, Ltd., has been amended to "medicated tablets for human use in the treatment of menopausal ailments."

(From "The Trade Marks Journal," June 8, 1938)

"CLENSOL"; for water softeners (1). By Clensol, Ltd., 75 Victoria Street, London, S.W.1. 579,743.

"Trostol"; for talloel, a manufacturing chemical (1). By The Champion Paper & Fibre Co., Hamilton, Ohio, and Canton, Carolina, U.S.A. 583,169.

"Alfenat"; for manufacturing chemicals (1). By Albert Products, Ltd., 177 West Street, Erith, Kent. 583,492.

"TRILON"; for water softeners (1). By I.G. Farbenindustrie A.G., Grüneburgplatz, Frankfort-on-Main, Germany. 584,734.

Grüneburgplatz, Frankfort-on-Main, Germany. 584,734.

"Beckopol."; for all goods (1). By Beck, Koller & Co. (England), Ltd., Edwards Lane, Speke, Liverpool, 19. 585,072. (Associated.)

"Selinon"; for chemical sprays for fruit trees (2). "Revisa"; for all goods (3). By Bayer Products, Ltd., 31 Basinghall Street, London, E.C.2. 584,947/585,364.

"Myeladol."; for cod-liver oil emulsions (3). By The Upjohn Co., 301 Henrietta Street, Kalamazoo, Michigan, U.S.A. 580,701.

"Nuvite"; for medicinal chemicals, excluding soap (3). By Elarco, Ltd. (The London Rubber Co.), 221 Old Street, London, E.C.1. 584,681.

"Helexo"; for medicinal chemicals (3). By Skol Products, Ltd., I Rochester Row, London, S.W.I. 583,827.
"TI-MACIN"; for medicinal chemicals (3). By The Ti-Macin Co., 39 Ordnance Road, Southampton. 584,786.

# Recent Wills

Mr. Samuel William Copley, of Deacons Hill, Elstree, chairman of Matthews & Wilson, Ltd., manufacturing chemists, London, S.E.1, who died on November 4, 1937, left £39,089, with net personalty nil.

Mr. Frederick Janson Hanbury, of Brockhurst, East Grinstead, Sussex, and 37 Lombard Street, London, E.C., formerly for many years chairman of Allen & Hanburys, Ltd., wholesale druggists, who died on March 1, left estate of the gross value of £100,136, with net personalty £36,935. He left his herbarium to the Natural History Section of the British Museum, to be placed, if possible, with the Boswell Herbarium already given by him (subject to his wife's interest therein). He stated that, having for some years published the "London Catalogue of British Plants," he desired that publication should be continued and according to the line of the continued to the cont tinued, and accordingly left his interest therein to his friends Alfred James Wilmott and Herbert William Pugsley and the Keeper of the Botanical Department of the Natural History Section of the British Museum, and also a legacy of £100 to enable them to finance the first issue after his death.

# Personalities

Councillor Milo Turner, M.P.S., Tamworth, has recently qualified as an A.R.P. anti-gas instructor (first-class special certificate).

Mr. William Mair, M.P.S., Edinburgh, has been awarded the Fellowship in the Royal Scottish Geographical Society in recognition of work in connexion with mountain panoramas and indicators.

Mr. John Holmes Keall, M.R.C.S., L.R.C.P., B.Pharm., Ph.C. (son of Mr. John Keall, a past-president of the Pharmaceutical Society), has recently obtained the M.B., B.S. (Lond.) degrees. Dr. Keall is on the staff of the Institute of Medical Pathology.

MR. G. W. EVANS, M.P.S., director of United Chemists' Association, Ltd., was presented with a gold watch at the recent annual meeting of the company at Cheltenham in recognition of his twenty-five years' service on the board of the company. His wife was also presented with a diamond ring for her loyal support to the social activities of Messrs. Ucal.

GEORGE.—On June 9, the wife of Wilfrid M. George, M.P.S., 21 Bowes Road, Acton, London, W.3, of a daughter.

O'Neill.—At 17 Herbert Place, Dublin, on June 8, the wife of Gerald O'Neill, M.P.S.I., Blackrock, of a son.

# **Marriages**

ALEWOOD-THOMAS.-Recently, Edwin Alewood, M.P.S., Swansea, to Elsie G. Thomas.

BINNS-LAYFIELD.-At St. John's Church, West Vale, Halifax, on June 4, Cyril Binns, M.P.S., Halifax, to Betty Layfield.

HARGREAVES—HASLER.—At Bridge Street Methodist Church. Bolton, on June 8, Norman Hargreaves, M.P.S., to Kathleen Mary Hasler, M.P.S.

# Deaths

Acton.—Recently, Mrs. Margaret Rose Acton (née Westbrook), M.P.S., 50 Palatine Road, Northenden, Manchester. Mrs. Acton passed the Pharmaceutical Society's Qualifying examination in 1920.

Davies.—At his residence, "Cartref," Esplanade, St. Peter Port, Guernsey, recently, Mr. William Henry Davies, M.P.S., aged seventy. Mr. Davies, who carried on two pharmacies in the island, was a member of the Mariners' Lodge of Freemasons.

Dobbin, aged eighty-three. A son of the late Mr. William Dobbin, Ph.C., North Street, Belfast, Mr. Dobbin served his apprenticeship with Robert Patterson, Bridge Street, and later joined with his brothers in the management of the firm of William Dobbin & Co., chemists and druggists, eventually becoming the secretary and a director of the firm. He is survived by a sister, Miss C. N. Dobbin, University Street, a brother, Dr. Leonard Dobbin, Edinburgh, and two sons.

Hill.—At "Long Leys," Lincoln, on June 6, Mr. William Edward Hill, Ph.C., aged ninety-one. Mr. Hill formerly carried on business as a wholesale and retail chemist in High Street, for over forty years.

Jones.—On June 16, Mr. Thomas Lloyd Jones, M.P.S., Denbigh, aged sixty-nine. Mr. Jones joined the firm of Harrison, Jones & Co., chemists, Denbigh, in 1895, having served his apprenticeship at Egremont and subsequently holding appointments at Heddingley and London. Entering the local town council in 1905, he was Mayor of Denbigh in 1913-14 and an alderman for nine years. He had a record of fifty years as a Sunday School teacher, being also senior deacon of Pendref Church. He was former chairman of Denbigh County School Governors.



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# Information Department

INFORMATION WANTED

Postal or telephone information with respect to makers or first-hand suppliers of the undermentioned articles will be appreciated.

H/15 Baldwin's depilatory

glove S/14 Celamol tablets S/22 Osmosine outfit

W/20 Hope's Restine
H/22 Martha Washington lipstick
B/15 Pixie powder puffs





THE

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# A Special Among Special Issues

THROUGHOUT the year, THE CHEMIST AND DRUGGIST produces a number of special issues, each of which is devoted to one particular aspect of the trade. The Annual Special ISSUE, however, still remains the chief among them all, for, to adapt a phrase which has become familiar to listeners throughout the British Isles, each year we endeavour to bring before our readers some of the interesting subjects appertaining to pharmacy. In this issue, an attempt has been made to link up some of the departments of pharmacy by reference to history which, it has been held, is the best indicator of the trend of events in these times. It will be seen in the article "Beauty through the Ages" that the lavish use of cosmetics is no new modern development, and incidentally it can be inferred that modern woman is lucky indeed compared with her predecessors who had to use beauty preparations which were both crude and dangerous. This subject was linked with the practice of alchemy, which so far as Scotland is concerned is dealt with by Professor Read, of St. Andrews University. "Poisonings in the Middle Ages," by Dr. Parry, is a valuable contribution to the knowledge of poisons in these distant days, and Dr. Parry brings to bear on the subject a fierce light which dispels popular views that Middle Age poisons were more deadly than those known to present-day scientists. There is a lesson here to be read in regard to the control of poisons which the reader may find for himself.

"The Second Book of Rates" is of special interest at the present time in view of the proposed alteration in regard to the incidence of medicines stamp duty. Dr. David Hooper has written pleasantly on Linnæus and the hundred-andfiftieth anniversary of the Linnean Society, a subject which he is well qualified to treat. What might be termed a revolution in regard to the teaching of botany is promised as a result of the unique methods of pocket-lens photography described by Professor Small of Queen's University, Belfast, who is himself a Scottish pharmaceutical chemist with a distinguished career. Students of botany who take up the study of this subject seriously will no doubt profit greatly by Professor Small's article. The illustrations, large as they are in the C. & D., have been reduced from 10 in. by 8 in. photographs and, as can be seen, are remarkable for their detail. Next come Tunis neroli oil, a new industry financed by British capital, and Algerian olive oil, where the old and new methods of extraction are strangely contrasted.

We may next direct attention to the article on witch hazel. well described as a product with a thousand uses. "A Day in a Hospital Pharmacy," which may in time become the last resting place of the hundred-per-cent. dispensing chemist, makes interesting reading. Bottle-washing machinery, which is now an important constituent of factory plant, is exhaustively treated and will no doubt be a source of surprise to those who do not realise on what a gigantic scale this type of machinery is now made. A well-known authority on London guilds briefly describes the history of the apothecaries who grew away from the grocers, and incidentally points out how the chemists and druggists at a much later date started a society for their own protection. Following a recent article on bee venom, we have included a brief account of the extraction of snake venom for use against snake bite. Glasgow Exhibition occupies three pages of illustrations, and these will no doubt be useful for Conference visitors to the Exhibition who may wish to see some of the exhibitors with a special appeal to the trade. A shop-planning article which deals with the problem of utilising difficult sites to the best advantage is contributed by a specialist in modern methods of shopfitting. Finally comes an article entitled "Jungle Holiday" by Mr. A. Marshall, who has sent us an interesting description of an unusual type of holiday not available to many who at this time of the year are occupied with the annual holiday problem.

# Chemical Exports Maintained

The trade and navigation accounts for May and the first five months of this year show there was a further contraction of our seaboard trade in most classes of merchandise, as was experienced in the previous month. The totals, compared with those of May, 1937, show a decline of nearly £8,000,000 in the value of our imports and that our exports, including re-exports, were down by about £5,000,000. Thus, for the first time for many months, the increase in the debit balance has been arrested. On the five months the aggregate trade is some £18,000,000 less than in the corresponding period of 1937, accounted for by a decline in imports of £2,000,000 and £16,000,000 less in exports.

In the "Chemicals, etc.," group the value of imports in May was the lowest figure recorded for some time, while the value of shipments outwards about equalled the figure



# THE CHEMIST AND DRUGGIST Special June 25



for the previous month. On the five months the aggregate value of our exports of these classes of goods continued to be maintained at nearly double that of our imports. Substantial falls in the arrivals of citric acid, £39,163; tartaric

All Classes of Merchandise	Imports	Exports of U.K. Goods	Total Exports including Re-exports		
May, 1938 May, 1937 May, 1936 JanMay, 1938 JanMay, 1937 JanMay, 1936	£ 75,393,773 83,173,412 69,136,264 393,427,311 395,244,689 335,450,958	£ 38,164,810 42,732,641 36,396,327 196,306,293 306,857,743 175,852,585	£ 45,341,989 50,125,335 42,030,881 224,238,910 240,268,702 203,244,256		

acid, £46,352; and boric acid, £15,140, during the five months are recorded. Imports of quinine and salts increased from £41,547 in the five months of 1937 to £45,138 in 1938. Landings of foreign proprietary medicines were about average at £324,913 during January–May this year. The chief sources of supply of chemicals, drugs, etc., of all descriptions were Germany, £1,517,351; U.S.A., £950,564;

France, £358,430; Switzerland, £331,042; Norway, £236,269; and Canada, £217,759.

Chemicals, Drugs,	May			JanMay		
Dyes and Colours	1938	1937	1936	1938	1937	1936
Imports Exports of U.K. Manufactures Re-exports	£'000 926 1,891 36·6			£'000 5,057 9,249 185·0	£'000 5,419 10,279 201·5	8,626

Our exports of quinine and salts totalled £81,834 for the five-month period (£76,894 in 1937), while shipments of proprietary medicines amounted to £582,067, against £590,280 in January–May, 1937. Our best customers this year for these packed goods were India, £122,909; Union of South Africa, £68,756; Australia, £57,844; and France, £38,481. The total value of exports of "Drugs, medicines and medicinal preparations" this year was £1,351,390, compared with £1,361,805 in 1937, and £1,261,315 during the first five months of 1936. About 60 per cent. of our shipments of these classes of goods were destined to Empire markets.

# Conciliation Machinery for Pharmacy

The following statement has been issued by the Council of the Pharmaceutical Society of Great Britain:—

The Council have recently received requests that the Society should sponsor the formation of an organisation of pharmacists who are employees, to act as a negotiating body on behalf of employees. They have also had under consideration recently published proposals for the setting up of comprehensive conciliation machinery for all retail distributive trades. They do not anticipate legislative effect being given to these proposals in the near future and they consider that in the event of any such comprehensive machinery being set up, the same special conditions which have rendered it necessary for the supply of medicines to be specially exempted, for example from the various Shops Acts, will make it essential that pharmacy shall be treated separately from the other retail distributive callings. While such a demand can be supported on its own merits the most effective measure to ensure its acceptance would be the existence of comprehensive conciliation machinery already in working order for the whole of the retail distributive section of pharmacy and embracing employers, whether individuals or corporate bodies, and all employees whether members of the Society or not. Such an organisation can only be formed with the active participation of both employers' and employees' organisations, and there is at the moment no indication of any strong desire for the provision of such machinery.

The employers are organised and some steps have been taken towards the organisation of employees, but there is little evidence of a desire to form a comprehensive employees' union which will embrace all qualified and unqualified employees in the retail distributive section of pharmacy. In the absence of such a union employees, according to their personal and political views, are being attracted either to an established union or to a union restricted to pharmacists and registered students. The former union provides the advantages of numbers, resources and experience, while the latter maintains the professional independence of its members.

The Council have taken the opinion of Mr. N. L. C. Macaskie, K.C., upon the extent to which it can participate in the formation or maintenance of organisations of employers or of employees and can provide conciliation machinery. Counsel has

considered the question in the light of the decision in the Jenkin case and from his opinion it appears:—

- (i) that the Society cannot utilise its funds to aid the formation or maintenance of employees' organisations or of employers' organisations separately;
- (ii) that it can set up an organisation by means of which employers and employees, being members of the Society, can negotiate conditions of service and that it can probably take power by by-law (subject to the approval of the Privy Council) to secure compliance with those terms:
- (iii) that it probably cannot utilise its funds to aid the formation or maintenance of an organisation for all employers and all employees in the retail distributive section of pharmacy, since a substantial part of the work of such an organisation would be for the benefit of employees having no connexion with the Society.

In the light of the above considerations the Council have come to the following conclusions:—

- (1) The special conditions of pharmacy make it desirable that if it has an organisation for conciliation purposes it shall be kept separate from any general organisation of retail distributive trades.
- (2) The most desirable form of organisation for the retail distributive section of pharmacy is one that will provide for negotiations between a body representative of all employers and a body representative of all employees, whether pharmacists or not, since only such joint machinery would have such a representative character as would justify its exclusion from any comprehensive statutory provisions for the organisation of the retail distributive trades.
- (3) If, nevertheless, an organisation or organisations of employees who are members or students of the Society are formed, the Society will aid them so far as possible in their early stages.
- (4) The Society will be prepared at any time to provide facilities for negotiation between representative bodies of employers and employees who are members of the Society if there is evidence of a substantial demand from both sides for such facilities.





# Beauty Through the Ages—I

By GEOFFREY RHODES

HE romance of beauty through the ages is closely interwoven with the story of the looking-glass. The old mirrors were such poor reflectors that delicate make-up of the kind aimed at to-day was out of the question. The small mirrors carried by ladies in the middle ages would certainly not meet the needs of the modern woman, and the improved silverbacked looking-glasses of the Georgian days may have been good enough for an age of powder and patches, but would not be much use now. When it is remembered that the art of polishing precious stones was not understood until the middle of the fifteenth century, it can well be imagined that any

mirrors were of a poor character. None of those old lookingglasses reflected more than fraction of the rays of light that impinged on their surfaces, and my lady owes a big debt to the optical instrument makers who have developed the science of reflection until now practically all the rays are returned and enter the eye of the beholder. The great part which the wonderful reflective pro-perties of the modern mirror play in the study of beauty is apt to be taken for granted, as is also the further recent development of the use of imitation daylight and graduated artificial illumination to assist in obtaining the exact effect desired. The first mirror must have been, as we all can guess, the surface of still water, and such personal adornment as was practised under those conditions must have been of a simple kind.

# Early Use of Cosmetics

The use of cosmetics is, however, a sufficiently ancient custom, and was practised by the Egyptians, Greeks, and Romans with the help of bronze toilet mirrors. There are also, of course, the biblical references to the use of cosmetics: in three books of the old testament one finds instances of making up the face and the eyes. In the Koran, too, are references to this form of beauty culture. But it is from

the very complete records of Egyptian, Grecian and Roman women's dress and customs that we have the fuller accounts of the early use of beautifiers, such as dyes and ointments. All the ancient arts of adornment were associated with elaborate forms of hair-dressing, and on many Greek toilet pots the slaves of the toilet or cosmetea are seen dyeing and waving their mistresses' locks. At the same time it must be remembered that neither the eyes nor the minds of the early peoples were developed like our own. And crude forms of personal adornment which would appear very uncouth to-day probably had a strong appeal in ancient times. For one thing, we take far more care of our eyes than did, say, the old Egyptians, for instance, and the visual effect of any aid to beauty is quite different. The practice of dyeing the palms of the hands brown with henna, a hablt still much in vogue among the orientals, prob-

ably dates back to long before the Christian era. And this custom of making up the hands can only appeal to a simple mentality which delights in highly coloured effects—as a child might to-day. The beauties of ancient Greece made up their bodies and limbs: but a custom of that kind would obviously not outlast women's freedom to venture beyond the intimacy of their home, and in any case would be largely a question of climate and dress. Women at the present time, of course, use cosmetic preparations when bathing, and the fashion of staining the toe-nails as well as the finger-nails is one of the natural results of the popularity of sunbathing. The earliest

habits of the use of cosmetics arose, no doubt, in connexion with the desire for bodily comfort, especially the protection of the skin against extremes of climate when scantily clothed. The practice of using oil to anoint the body has been usual in all ages in hot climates. The Roman writers refer to this custom, and point out that even when clothes are worn, ointment safeguards the skin from the dryness of the atmosphere. It will thus be seen that in the most ancient times even there was a useful side to the custom of personal embellishment.



"La Toilette," from an XVIII-century print

# Women of Ancient Egypt

The remarkable wealth of toilet articles recovered various times from the Egyptian tombs has enabled us to become closely acquainted with the aids to beauty employed by the ladies of the courts of the Pharaohs. Sir J. G. Wilkinson, in his monumental work on the "Manners and Customs" of the ancient Egyptians, devotes several chapters to the dress and toilet of the women. The women of ancient Egypt appear to have been very pretty, he says, and the manner in which they did their hair in plaits and fixed love-curls on their brows and cheeks with gum was intended to enhance their charms. A prolonged study of the oil vases, ointment boxes, saucers, spoons and make-up pads,

wooden sticks and bodkins recovered from the tombs, enables a complete mental picture to be formed of the Egyptian beauty toilet. Remains of pomade still retaining a faint perfume, small quantities of toilet powder, eye pencils and dye, complete the story; while combs and hairpins also tell their tale to the hairdresser. Kohl or collyrium was used for the eyes. One kind was called "urat;" it was green or bluish-green and was used to tint the lids. Other dyes were no doubt used for the palms of the hands and for improving the appearance of the feet and staining the toeand finger-nails. Unlike the circular Greek and Roman mirrors, the Egyptian form was oval or oblate. It is interesting to note that the ancient word for the mirror signified "show-face." Eastern women have always devoted great attention to artificial measures to preserve and increase their natural charms, and





if it was possible to probe as deeply into the Chinese, Indian or Persian history as the marvellous recent finds enable us to do in Egypt, no doubt we should find equal proof of the antiquity of the custom. Eastern women still, in some cases, touch up not only the lips and nostrils but the tip of the tongue.

### The Use of Henna

The preservation of the original colour of the hair has been of great concern to both men and women at all times in history. Black or brown dyes to enable grey and white locks to assume the appearance of youthful tresses have been probably the greatest vogue at all times. The story of the unfortunate Marie Antoinette's hair turning grey in a single night before her execution is explained by the fact that she was refused, when in prison, the use of the cosmetics and hair dyes she generally employed. Henna is, perhaps, the most ancient of the dyes still in use for the hair, and the fact that it has given satisfaction for more years than it is possible to count has something to do with this. The same black or henna dyes have been used to stain the eyebrows.

# Pigments and Pigment Containers

"The custom of staining the eyelids and brows with a moistened powder of a black colour was common in Egypt from the earliest times," says Sir J. G. Wilkinson. "It was also introduced among the Jews and Romans and is retained in the East to the present day. It is thought to increase the beauty of the eye, which is made to appear larger by this external addition of a black ring. The dye is prepared in various ways. Some use antimony, black oxide of manganese, preparations of lead and other mineral substances; others, the powder of the lampblack of burnt almonds and frankincense, and many prefer a mixture of different ingredients." Art flourished long before the pursuit of science, and in the British Museum the metal mirrors belonging to the Egyptian, Greek and Roman ladies make up for their poor reflective qualities by the beauty of the backs. The reverse of most of the ancient mirrors are wonderfully decorated in relief, and some of the most handsome have no handles but are enclosed in a thin metal box of most exquisite design. An equally fascinating series is provided in what may be called the beauty cases of ancient Egypt, Greece and Rome. The earliest containers for cosmetics are probably the cockleshells among the Babylonian toilet articles recovered at Ur. Remarkable to relate, these shells still contain rouge and bluegreen pigments, obviously for making up the face and eyes. It is impossible to suppress an emotional interest when these are seen with the contents to-day, 5,000 years after the fair possessor of the shells dipped her fingers into the powder. A couple of thousand years or so later, appear the beautifully carved cosmetic boxes of the Nile cities. These are often made with divisions covered by a sliding lid. Sometimes the separate compartments have each a link cover turning on a pin. smallness of some of these beauty boxes suggests that they were only used for rouge and eye-pencils and salves. But other cases are large enough to hold a mirror, combs, and hair ornaments. These boxes are made of ivory and rare woods and most beautifully decorated. Many ingenious devices were used to fasten these boxes, and many in the British Museum have no hinge to the lid, which is entirely removed when in use. By a series of studs, however, on the inner side of the lid this could be secured by a seal when the box was shut to prevent a slave from making use of the contents. Other beautiful toilet boxes are the circular pottery ones of the Greek period. No description can do justice to the beauty of these jars, but a photograph of one in the British Museum is reproduced here. Terra-cotta vases and tiny glass bottles sometimes enclosed in wooden or wicker protective outer cases suggest perfumes in liquid form, while all kinds of scented woods and spices were employed to supply perfume for the person, as well as rose water and similar lotions. All these were known to the ancient Greeks, and Homer speaks of Juno using "Soft oils of fragrance," and Venus "Bathing her lovely face with ambrosial unguents." Helen acquired her fatal gift which cast a spell over both the Greeks and Trojans by discovering the secret cosmetics of Venus, and the Greeks claim pre-eminence in compounding perfumes as a result. All the Greek women

excelled in the art of beauty culture and made the fullest use of cosmetics. They are said to have painted their faces with white lead and coloured their cheeks and lips with vermilion. Hair dyes were also in favour.

## Roman Days

Juvenal, the famous Roman poet, has many verses describing the elaborate ceremonial of the Roman ladies' toilet. He says the slaves were in serious trouble if they did not apply the paint to the correct part of the curving cheek, or gum the curl at the correct angle on the brow. Heavily scented oils and essences were a great feature in Roman beauty culture. In addition to these, the women made use of a great number of pastes and ointments to safeguard the delicacy of their complexions. Pliny, another Roman writer, mentions several of these preparations, such as pea-flour, barley meal, eggs, narcissus bulbs and honey. One special remedy was comprised of bread crumbs soaked in milk. The pastes prepared from these various ingredients were used as a kind of poultice during the night and in some cases, most of the day. Juvenal wrote a satirical poem about a Roman husband who only saw his wife's face when she went out. A Roman recipe for improving a dull complexion includes beans, white-lead, and orris root, bound together with honey. As the Roman women were mostly dark, there was a big demand for blonde dyes, and curious to relate the chief preparation used for bleaching the hair was a soap of goats' fat and ashes. This is the first mention of soap, which the classical poet, Ovid, in one of his books declares to be very bad for the locks. It is interesting to note that the Romans were specialists in the production of rose water and cold cream, still the foundation of so many toilet preparations. The famous Roman physician, Galen, is credited with the discovery of cold cream, Ceratum Galeni, although his prescription is no longer used in the form he laid down 1,750 years ago. But his basic idea, the mixture of grease and water, still

### Influence of the Moors

After the fall of Rome, civilisation was side tracked, and we owe a great deal to the Arab culture, particularly in medicine and personal hygiene. The Moors in Spain spread all over Europe ideas of refinement and beauty. And the return of the Crusaders also brought perfumes and cosmetics from the East. We owe to this Moorish influence the renewal of social refinements in England, which had lapsed for centuries after the fall of Rome and the many invasions of Britain. The constant interchange of visits between the countries of France, Flanders and England had its effect on fashions in women's dress and toilet methods. When the Spaniards finally drove out their conquerors, the Moors, they had already adopted many oriental customs, and the influence of the Peninsula in Belgium was particularly marked. The ladies of Bruges, that the English queen thought so lovely, learned how to make themselves attractive from their Spanish cousins. A great deal of information about the methods of beauty culture in the middle ages is obtained by reading the attacks by the moralists of that time on the frivolous habits of the ladies, "Painting their faces, dyeing their locks and plucking out superfluous hair." Geoffrey Chaucer, the poet-chronicler, has many romantic verses on the subject of styles of plaiting the hair and dressing it with garlands of flowers. And a manuscript in the British Museum contains the following description of a mediæval perfumer's shop. I have changed the mixture of Saxon and Norman French in the original, into English:—

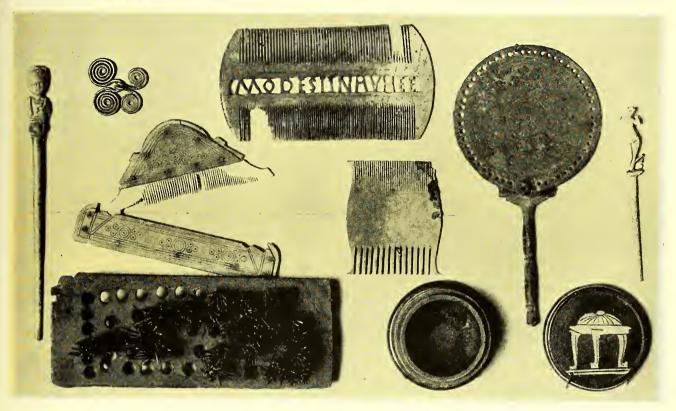
"Said she if I shall thee tell,
Mercerie I have to sell,
Boxes of ointments sweet
For face and body meet,
Mirrors too, large and bright
Wonderful to help the sight,
Combs I have more than ten,
They are both for maids and men."

Books on beauty compiled in the middle ages—it is hardly necessary to say they are in manuscript—make curious reading to-day. One authority recommends pale-faced women to



# THE CHEMIST AND DRUGGIST Special June 25





Combs and other toilet articles of Greek and Roman origin

breakfast early so that the wine they drink at that hour will give them a becoming flush all day. Most beauty specialists recommend that the hands be washed and the nails cut at least occasionally. There are also frequent references to magic mirrors which made the owner look more beautiful than she was. Whether it was necessary to derive the full virtue from this flattering looking-glass to make the onlooker inspect the mirror and not the lady is not made quite clear.

### The Doctrine of Signature

Magic played a big part in all the beauty treatments of the middle ages. To explain the idea behind all the remedies and formulas made use of it is necessary for a moment to refer to what was termed the "Doctrine of Signatures." The ancient meaning of this word "signature" was that the significance or appearance of a thing denoted its characteristics, the signature being literally the sign of its nature. Thus the eye-bright or euphrasy was employed to beautify the eyes because the flower was supposed to look like an eye. This was similar to an ancient Eastern practice of giving the top shoots of the plant to remedy headaches, the plant itself for internal troubles, and the roots as a balm for sore feet. Many of the love philtres of the middle ages were beauty aids in the sense they were intended to increase the personal charm of the girl who sought a lover. Magic, however, had a useful side. Because if it was known from experience that a certain herb was beneficial to health and beauty, the alchemists were only too ready to recommend it. Its successful use gave practical support to their spells and incantations—in fact we owe many present-day prophylactics to the researches of the pseudo-scientists of the middle ages. These early practitioners, in the face of the superstitions of their day, did not dare recommend a simple remedy, but were obliged to wrap it up with a lot of nonsense to make it acceptable to people always looking for signs and wonders. The old manuscript herbals include many perfectly sound ideas about ointments and aromatic vinegars, which the lady of the house, assisted by the maids, distilled in the chamber called for many centuries

the "Styll Room." When taken from the garden these herbs were not considered so potent as when gathered in the fields, and plants collected on the hillside always had the preference. This was, no doubt, based on the notion that the more difficult it is to procure anything the more precious it obviously must be. Queer head-dresses like that steeple-hat, the Hennin, called for special treatment of the fact, otherwise the features would have looked pallid, and history goes to show that there is little in modern make-up that was not to some extent in use in mediæval times. The chief differences in the steps taken to enhance feminine charms then and now would appear to be the use in those far-off days of stronger tints and bolder effects, partly due, as has been explained, to the poor reflec-tive properties of the mirrors. The ideas of staining the finger nails and using pink powder for the palms of the hands were included in the toilet fashions which came to this country at different times from abroad. And here, it is interesting to note that the older oriental custom of dyeing the tips of the fingers with henna or other colouring matter was gradually modified until the stain or enamel was employed for the finger nails alone. No doubt this was a matter of expediency in ordinary social life, as stained finger-tips must have been distinctly inconvenient in the days when everyone took their food without the aid of knives and forks.

### Virtues of Hungary Water

The church played its part in those days in the preparation of lotions and aromatic vinegars for the improvement of the complexion. Hungary Water, named after Queen Elizabeth of Hungary, who was sought in marriage by the King of Poland in her seventy-second year on account of her youthful appearance and extreme beauty, had a happy introduction on that account. An old monk is supposed to have discovered it by accident, although its recipe is simple enough, consisting of rosemary flowers steeped in spirits of wine. Thudor times saw a widespread interest in waters for the complexion in place of the ointments of the middle ages. The brilliant fifteenth century, which saw the invention of print-





ing, witnessed many refinements in toilet customs. Venice, from its close association with Constantinople, followed the elaborate beauty treatments of the East and passed them on to the countries of northern Europe, and perfumery came into vogue. Dyeing of the hair to a golden tint was also extensively practised, and a member of the family of Titian, the painter, has preserved for us an account of the process. One of the principal preparations used for the purpose consisted of alum, black sulphur and honey distilled with water. The hair was soaked in this preparation and then dried in a hot The golden tresses so often seen in the paintings of women by the Venetian artists of the fifteenth century are supposed to have been acquired in the manner referred to. An infusion of onion-skin was also used as a hair dye in Paris at that time. The same period is responsible for the use of face powder. When Catherine de Medici married the French king, Henry II, she introduced to the Court numerous Florentine cosmetics, and perfumed powder to dust on the face was the most notable of these. Some of the preparations of that time were not, however, so innocent, and the following recipe for a beautifying water is distinctly suggestive of the ideas of the old alchemists:—" Secure a young raven from the Keep it for forty days on a diet of hard-boiled eggs. Then kill it and distil with myrtle leaves, talc and almond oil." The sixteenth century marks the revival throughout Europe of the use of paint for the face. Court beauties tinted their cheeks when attending masques and balls with sublimate, and the drying effect on the skin was remedied by the use of ointments and lotions the day after. Some most remarkable pastes were sold by the perfumeries of the day to counteract the effect of colouring matter on the skin; one historian mentions a compound of pigeons' claws, mother-ofpearl and camphor-scented with musk!

### The Puritan Times

The conception of a type of beauty based on health and the freshness resulting from attention to personal hygiene associated with the character of the Puritan maid has a historical explanation. What are now considered the absolute necessities of the toilet, like soap, for example, were in those days expensive and so beyond the reach of the poorer classes. For nearly 250 years-in fact, till the middle of the nineteenth century—soap was taxed in addition to its high price. In Tudor days the peasants, if they had soap at all, used a coarse brown soft soap of their own making. This was no doubt very bad for the skin, and thrifty housewives who saved to purchase white soap occupied almost another social rank. It was the same with the few simple toilet preparations like lavender water. Supplies were secured only by the diligent and economical. By setting up a standard of freshness and purity—to which the poets pay homage—the Puritan beauties encouraged the women of the time to give a little attention to the care of their hair, complexion and hands. In so far as it was only an inspiration towards personal cleanliness it was most valuable at a period when the toilet was too often altogether neglected by the working classes. Cleanliness among the Puritan women was a ceremonial; it might almost be said a superstition. Taken to-day for granted as the real basis of any beauty treatment, cleanliness was almost unknown except among the wealthy few: till the new sect made it an article of faith. They urged their ignorant sisters to give up gawds and buy soap, and they builded stronger than they knew. In those early days of the story of the care of the person white soap was prized, and the smallest scraps preserved and melted down for future use. This careful economy in the use of toilet soap persisted for hundreds of years, and many persons living remember the habit as a common practice in the home of their youth.

### The Restoration

The days of the Restoration saw a great revival of magnificence in dress, and all the necessities of the Paris beauty parlour were brought over to enhance the galaxy of lovelines at the Court of Charles II. Queer remedies would, however, still appear to be in vogue, for in a book on the toilet printed in the seventeenth century we find a recipe attributed to the

inventive genius of Queen Elizabeth for a concoction of apples and the fat of a young dog! The portraits of ladies by Sir Peter Lely at Hampton Court Palace and elsewhere show how the hair was dressed with short curls on the forehead and ringlets at the side of the face. There is also a strong indication of the use of artificial embellishments not only for eyes, cheeks and lips but also for finger nails. The French vogue for constantly massaging and pinching the finger tips to make them slender came into prominence about that time. The employment of hair dye and the use of additional separate curls was not exactly new, but certainly gained favour. The cult of golden tresses seems to have been one of the most common fashions among women at all times in history. Reference has already been made to the Roman and the Florentine partiality for bleached hair, and the vogue is suggested in Bassanio's words on seeing Portia's portrait. Venetian beauties often dyed their hair, which may explain Shakespeare's lines in "The Merchant of Venice":—

"Here in her hair
The painter plays the spider; and hath woven
A golden mesh to entrap the hearts of men
Faster than gnats in cobweb."

The plays of Thomas Shadwell also provide interesting historical matter on this subject. One of his characters claims to supply "almond water and mercury for the complexion and all manner of confections to preserve present and restore lost beauty." At this period, too, one obtains sidelights on the prevailing habit of plucking the eyebrows to make them arched and give an expression of youthful disingenuousness to the face. The famous Duchess of Newcastle, maid of honour to Queen Henrietta Maria, who wrote volumes of gossipy fanciful essays, explains in her book, "Poems and Fancies," how to do this. She says, "It is the custom among the fair, to pull out the hairs edging the eyebrows, by the roots, leaving none but a thin row." The slender line remaining was often darkened with a pencil.

### Patches

The rather curious fashion of wearing patches to draw attention to the beauty of the features is of earlier date than generally supposed, and is frequently mentioned about the time of the Restoration. Women often walked in parks and gardens without hats, the curled head protected by a small floating veil, and blemishes or spots on the veil may have been thought flattering and led to the use of patches. That they were in general vogue in 1658 is proved by the following lines printed at this date:—

"Her patches are of every cult For pimples or for scars. Here's all the wandering planets' signs And some of the fixed stars. Already gummed to make them stick They need no other sky."

Joseph Addison, the statesman of Queen Anne's reign, declares that the position of the patches on the face signified the political views of the wearer. "I went to the Haymarket Theatre," he writes in the "Spectator," "where I could not but take notice of two parties of very fine women who had placed themselves in the opposite side boxes and seemed drawn up in battle array one against the other. After a short survey I found they were patched differently; the faces on one hand being spotted on the right side of the forehead, and those of the other on the left. Upon inquiring I found that the body of Amazons on my right hand were Whigs, and those on my left Tories." A line from a more gallant writer of the period declares it to be a case of great moment to decide:—

".... How curls should fall or where a patch to place."

During the two hundred years that the vogue continued for wearing these tiny designs in black court plaster, no lady of fashion could venture abroad without her patch-box, and she might be seen to stop in the street and anxiously scan her features in a little mirror to make sure that each patch was still in place and hastily restore any which were missing.





## The Eighteenth Century

The Restoration drama that brought women on to the stage was responsible for a further use of cosmetics. The theatrical make-up of famous actresses in Paris and London was copied, and the "belles" and "toasts" went to the assembly rooms in all the splendour of Drury Lane or Covent Garden. Later the introduction of Italian opera gave a further impulse to the general desire for artificial aids to beauty. Many other interesting factors contributed to the splendour and elaborateness of the 18th century social life. The greatly increased prosperity due to the new settlements in the East and in America, and the building of roads at home which made it possible to travel comfortably and easily, made entertaining far more usual and frequent. All played a part in the development of social refinements. There was also another

refinements. There was also another influence which had to do with taste in matters of dress and personal adornment. The discovery of the buried cities of Pompeii and Herculanaeum was the signal for a classical revival. The Roman styles of hair-dressing were studied anew and the more severe types of the classical times imitated. The discovery of glycerin and its value in its soothing effect on the skin was one of the practical developments of this period. At one time ordinary lard was recommended as a complexion cream. The exquisite painting by Boucher of Madame la Marquise de Pompadour, now in the Scottish National Gallery, is an example of the classical style of

in the London Museum. They are exceedingly attractive in appearance, being entirely covered with a tapestry of exquisitely fine needle-work often introducing graceful figures. Upon opening such a box a few compartments are revealed and one or two bottles for scented toilet water. The 18th century dressing tables are something entirely different; for one thing they provide for such a diversity of powders and pastes that it is impossible to-day to hazard a guess at what was placed in the myriad divisions. One particular dressing table at South Kensington Museum has so many trays, boxes and open compartments that it is impossible to count them off hand. To arrive at an exact computation of these divisions it would be necessary to label them in groups to start with. A chemist who had a commission to-day to stock a dozen or two of such beauty tables would certainly have his work cut out. If

one may hazard a guess at the contents of the particular dressing table on exhibition at South Kensington, when in use by its owner, it would appear that a wide choice of each type of cosmetic was in vogue at that time. The same ointments perfumed with varying quantities of rose water and powder in varying conditions of trituration would possibly account for the extremely wide choice of media for making up the face. The poet Gay in "The Fan" describes such a dressing table:

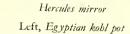
'There stands the toilette, nursery of charms Completely furnished with

bright beauty's arms.
The patch, the powder box,
pulville, perfumes,

pulville, perfumes,
Pins, paint, a flattering glass
and black lead combs."

World renowned designers of

furniture like Sheraton made such



Right, Grecian lady's powder bowl, circ. 500 B.C.



beauty aimed at in the 18th century. The hair is dressed to reveal the shape of the head and cosmetics used in the daintiest and most restrained manner yet with the fullest effect. Much of the original elegance of this fashion was lost later in the century when the fantastic tall head-dress was adopted—see C. & D., 1935, I, 444.

# XVIII Century Embellishment

The historian is able to reconstruct the record of personal embellishment during the 18th century with a good deal of detail. The material lies to his hand first of all in the form of tangible evidence like the beauty cases and elaborately fitted dressing tables seen in the private palaces of England and at South Kensington Museum. The small beauty boxes of the Stewart days were replaced by these toilet tables made by the famous cabinet designers of the Queen Anne and Georgian times. The beauty cases of the Restoration were not unlike work boxes in general exterior appearance. Several models may be seen

tables specifying exactly what paints, powders, and salves each division was intended to contain. The wearing of patches in the eighteenth century had become so general that the patch boxes competed with the snuff boxes in their elegance of design and the wealth of their ornament. The famous collection of Battersea enamelled patch boxes now on view in the London Museum comprises one of the most remarkable assemblies of miniature works of art in the world. The patch box was usually circular in form, as better adapted in shape to rest in my lady's small palm. Sometimes they were heart-shaped, to suggest no doubt the sentimental purpose they served. Men's patch boxes were mostly rectangular. The vogue for the fantastically high style of head-dress, which was accompanied by a heavy use of face paint, created the need for the small rooms in the houses of the period known as powder closets. These glorified cupboards may still be seen in the Queen Anne and Georgian houses in all parts of the country. They were





equipped with a sort of apron, which the domestic engaged in the powdering adjusted round the neck of the person concerned. The powder was then applied by means of a small bellows or puff not unlike the sprays used in the greenhouse to-day. Before the head was powdered the hair was heavily creamed with a sticky pomade to make it stand up, and the

creamed with a sticky pomade to make it stand up, and the curious erection of curls was reinforced with false hair, feathers and ribbons, building up the imposing coffure, which was finally adorned with such objects as models of ships, windmills, and even stage coaches. Once completed such a coffure was worn several days. The discomfort of this practice can easily be imagined and suggests the origin of the popular French saying "that one must suffer if one wishes to be beautiful." No one to-day would, of course, suggest such a method of hairdressing, and for period costume for fancy dress or the stage, cleaner adoptions of a wig replace the tangled mass of false hair, ribbons and grease affected by the belles of the eighteenth century. A curious form of double mirror which was intended to assist in powdering the hair is still sometimes met with in old houses. Two or

three mirrors are fixed by movable joints in a light iron frame. These looking-glasses can be so adjusted as to enable the owner to inspect the various parts of the headdress which would ordinarily be out of sight. One of the favourite styles of this grotesque method of hair-dressing, which was sometimes 3 ft. high, was a representation of a ship in full sail reposing on a sea of thick curls. All these types of coiffure demanded vivid complexion colours and the choice of paints in a lady's cabinet was extremely wide. It is said that in Paris at the time of this fashion it was necessary for the ladies of the court to kneel on the floor of their carriages instead of occupying the seat, to preserve their enormous headdresses from damage by contact with the roof of the vehicle.

Masks

Another curious aid to beauty, for so the practice was considered, was the wearing of a mask. The notion had a long vogue. Autolycus, in Shakespeare's "Winter's Tale," offers masks among his wares. When the rage for using masks was at its height in France, they were made of black velvet stiffened on buckram and lined with white satin. With openings for the eyes and mouth they covered most of the face.

Unlike the usual type, these masks had no strings to attach them to the head, but were held by a silver bar between the teeth. The object of this plan was to disguise the wearer's voice as well as her appearance. It also made it exceedingly easy to use the mask, which was made to fold in half like a pocket book. Designed in this manner with the bar for the mouth, the mask could be assumed or removed in a second if desired. The use of heavy powder and paint and masks synchronised with the Sedan chair days between 1725 and 1800.

## The Days of Marie Antoinette

All prevailing conceptions of beauty towards the close of the eighteenth century emanated from the Court of Louis XVI; Queen Marie Antoinette's slightest act or desire was expressed in a new fashion. The vogue for the dairymaid style of beauty adopted in Paris and London when the Queen wore the dress of a shepherdess at her model farm at the Trianon is a matter of history. But other modes of the day are not so well known. So closely was every caprice of Marie Antoinette copied by the ladies of her court that when, after an illness, the Queen wore short hair, every lady in the land copied her, and for that season coiffure à l'enfant, as it was called, and a complexion to match, was the type of beauty aimed at by all the society women. Most of these ideas were reflected in Court circles in England at the same time. Marie Antoinette in her

early days had light-coloured hair, and a pretty blonde tint was popular for a long time among the aristocratic families and known as *Cheveux de la Reine*, or Queen's Hair. The tragic events of the French Revolution gave a different direction to notions of beauty, but they were still of mushroom growth, appearing in a night and vanishing again after a brief interval. There is probably some psychological law explaining the fact that immediately after the Revolution

brief interval. There is probably some psychological law explaining the fact that immediately after the Revolution in the days of the Directory a morbid idea induced some of the Parisian beauties to adopt short hair and a pallid make-up "à la victime" or "à la sacrificée" with the object of attracting admiration.

## Influence of the 1st and 2nd Empires in France

The Court of the Empress Josephine was one of the most brilliant the French capital had ever seen, and the Empress started a new era in all that pertained to fashion and beauty. There was no question of the personal charm of Napoleon's consort, and she gathered round her a galaxy of beautiful women,

in many cases the wives and daughters of the Emperor's marshals and his officers of State. Born, of course, in the West Indies, Josephine brought with her many rare cosmetics for her own use in the first case, and which she later had specially prepared by the clever Parisian perfumers for the benefit of her friends. An introduction by the Empress to one of her hairdressers or chemists was considered to be the granting of a very great favour, and when Marshal Marmont conquered Dalmatia for the Emperor, the Empress, as a particular mark of her appreciation, allowed a shop that only supplied the Empress's circle to execute a commission for the Duchess of Marmont, the Marshal's wife. The wars in the Peninsula led to the introduction of vanilla, cocoa, and almond pastes from Spain, and the Emperor's eastern campaigns still further augmented the supplies of beauty preparations available in the French White lead and other deleterious agents were capital. less used, being replaced by the simpler herbal pre-scriptions. The Empress Josephine thus was able to bequeath to her sisters a valuable legacy of experience bequeath to her sisters a valuable legacy of experience both in preparing cosmetics and in using them. Politics have always had a surprisingly marked effect upon women's fashions, and when the allies entered Paris after Waterloo it was only to be expected that a volte-face would take place in the chief sphere of feminine interests. Everybody's countenance must be a l'Anglaise, simple hairdressing and rosy cheeks. When the

of feminine interests. Everybody's countenance must be à l'Anglaise, simple hairdressing and rosy cheeks. When the new French King had established his Court, fashion swung back again to the utmost elaboration. Everything that could be thought of to heighten and adorn beauty was in demand. The English "simple maiden" idea was completely abandoned for the sophisticated notions of the Gallic spirit. The idea which is to-day stressed, namely, the harmony of make-up with dress, was launched then. Popular shades for silks, such as smoke and Nile water, settled the tint of the face powder employed.

### Search for New Ideas

A revolution or two and the Paris stage was set for the Court of the Second Empire. Railways were coming into existence, and travel was more general, with the result that the picture galleries of Europe were ransacked to find new ideas for the toilet. The rage for Titian-coloured hair was one result. London was no exception to the new craze for gorgeously tinted locks, and the trying effect on the complexion of this red and yellow dyed hair led to the adoption of the loudest face paints. Direct evidence of the use of rouge and eye-pencil was not encouraged during the reign of Queen Victoria. A miniature hand mirror which might be furtively withdrawn from a glove was the utmost limit to which a lady could go in the pursuit of beauty in those austere times.

Egyptian

mirror





It is a commonplace that there is nothing new. There is only the fresh presentation of an old idea or a novel method of carrying out a former practice. "Face menders" and "Face physic" are familiar terms. They stand for a treasury of ideas and methods that have existed in feminine circles before history began. Cleopatra's slaves softened her toilet water with barley. The Court beauties of the Restoration used cold cream, and the ladies who sat to Romney and Gainsborough dusted their faces with rose-perfumed rice powder

### The Mirror is Handed On

They possessed and made use of other cosmetics; but the first-mentioned will serve to show the continuity of the art of conserving and embellishing beauty. The mirror has been handed on. There has been no break, only novel combination of, for the most part, well-tried lotions and creams. A visit to the picture galleries where the entrancing portraits of the fair adorn the walls show that the expression of beauty has varied through the ages. Social life had left its impress upon the toilet as in the case of other matters. The use of snuff induced women to make up the nostrils, and the introduction of smoking much later caused anxiety about the finger-tips. But in spite of these side issues, the conception of beauty down the cycle of the centuries has never varied one iota. The sole object of all the thought and care at the dressing-table has been to capture the semblance of youth in the full bloom of perfect health. And that fact has in its turn been the cue to the methods to be employed. The importance of promoting health has never been lost sight of. When the belies at the masques at Whitehall used sublimate to dye their cheeks for the night, their first care in the morning was to get rid of it by means of cold cream. Even in the days when to use vermilion salve for the lips was considered immodest, a colourless lip cream was freely employed as a healing salve. In the same way hair stains have always contained ingredients which are believed to be good for its growth, and would give the tresses the lustre of health. The constant aim was to avoid an appearance of pale cheeks, pale lips and finger-nails and dull hair. A review of history makes clear many of to-day's practices, although at the same time the past conditions of life demanded systems of beauty culture which would not altogether be applicable in modern times. For one thing,

all make-up in the past was for poorly illuminated rooms. Candles and lamps are apt to cast heavy shadows, and are no doubt responsible for the freer use of paint than would be at all pleasing in its effect with modern lighting. Another point to consider

pleasing in its effect with modern lighting. Another point to consider is the fact that, formerly, most women made their own salves and lotions. Treasured recipes were handed down from mother to daughter. Indeed, if it had not been for the industry in this direction of the chatelaine of the middle ages many valuable toilet aids might be lacking from the presentday beauty box. That there have been distinct fashions in beauty is apparent from the style of the famous likenesses in the picture galleries. To maintain a correct balance, a departure in one direction inevitably led to a move in another. The heavily powdered coiffure encouraged the generous use of the eye-pencil. Brows and lashes needed definition or would have been lost altogether. Faces, too, called for a marked application of rouge with that tall trying wig. All these points can be studied in the marvellous paintings of Sir Joshua Reynolds and Sir Thomas Gainsborough. The historical pageant of fashion is also reflected in numerous old plays and romances. The line: "She stained her hair yellow which was then the mode," occurs in a seventeenth-century tale. The object of some of the aids to beauty of past years is not appreciated to-day, and no one can say what constituted the particular appeal of the lengths to which women sometimes went to win admiration. And unfortunately for history the beauties who so bedecked themselves have carried their secret with them. The chain, however, is never entirely broken. Perhaps the most striking factor in the story of modern beauty culture is the diversity of women's interests. They dress and make up for the office, the home, the beach and the ballroom, and an entirely different armoury is in each case drawn upon in the battle of the charms. At the moment there is some controversy over the question of tinted nails.

lacquered finger-nail is no new idea, as this brief history of beauty has revealed. Chinese mandarins three thousand years ago displayed golden finger-nails to denote their exalted rank. The women of ancient Egypt stained their toe- and fingernails, and the practice has never really been abandoned. It has merely lapsed from time to time, like a vogue for short hair or long dresses. The suggestion made in some quarters that half-caste women have adopted the idea to disguise their parentage is wide of the mark. A nail, like the hair, is

growing and, therefore, for selectroutts wies candes offer anatomical reasons alone calls for special attention. tee marables line an omet on down or low lost to but This delicate curved plate that our protects the last plus phalanx of thumb, each 6210 finger and toe, is simply a modificameno tion of the cuticle. varier Each nail lies on a padded bed of cellular tissue which Laine overlaps its sides and root. This has led to a nail being said to be fitted into its frame much as a watch glass is adjusted into its rim. The whole mass

glass is adjusted into its rim. The whole mass of the soft bed and the harder structure of the nail itself is permeated with a highly organised nerve system, and millions of cells constantly in chemical action promote the necessary growth. This delicately organised tissue makes it imperative that to keep the pails

strong and healthy they need more care than the occasional use of a pair of scissors. For one thing, the cuticle which rolds the nail in place is drawn forward by the growth of the nail and would in time tend to mask a part of the root if not softened and pushed back from the surface of the nail to which

it adheres. Preparations for softening this cuticle have certainly been in use for as long as nail stains. The word "manicure from the Latin, tells its own tale, showing the Romans understood the care of the hands. The use of nail polishes in the first instance was to keep back the cuticle, and gave the nail a pearly transparent appearance. Whether or not a coloured polish or enamel was used has been all through the ages purely a matter of personal inclination. No doubt a great lady's choice was sometimes copied and gave rise to a fashion. Those who care to delve into history will discover that the usual practice was to approach each nail as if it was a single gem, accepting the cuticle as the setting and the nail itself as a facet to be polished and all its potential beauty revealed. The peculiar appeal of the practice of tinting the finger-nail lies in the fact that they offer such wide scope for the exercise of individual predilection. Flame, rosy fawn, and wine, some of the newest shades for the nails, could hardly be suggested for the hair or the complexion. In this age travel has contributed to women's experience of the infinite possibilities of the toilet, but there is still far greater wealth of knowledge to be gleaned from the past. Bygone years provide a fascinating study, because in former times the subtleties of make-up that are such an accepted method of enhancing women's charms, were exploited with consummate skill. Every avenue was explored that might afford a clue to the embellishment of beauty. Neither was a woman satisfied with the best salve for the purpose; the most suitable container must be devised, and special furniture designed to hold the vases and vials. She desired an artistic unity not always attained to-day. The motive for a fashion, too, is often as interesting as the record of the practice itself.

"The face specialist," form a XIII century

Franco-Flemish MS.



# Alchemy in Scotland

By JOHN READ, Ph.D., M.A., Sc.D., F.R.S., Professor of Chemistry in the University of St. Andrews

SCOTLAND'S impressive contribution to the development of chemical science and industry is well known; but it is not generally realised, even among chemists, that from on the very advent of alchemy into western Europe until the birth of modern chemistry this small and isolated northern land fostered a succession of outstanding exponents of the "Divine Art" of alchemy, the forerunner of chemistry. The earliest of them was Michael Scot, a veritable "Wizard of the North." He achieved fame in Spain and Italy early in the thirteenth century as a master of Latin learning, of Hebrew,

and of Arabic, and became court astrologer to the Emperor Frederick II in Sicily. Among his authentic writings is a valuable memorandum in Latin, summarising the contempor-aneous ideas of alchemy. Michael Scot was the most notable Briton to figure in the history of mediæval Italy.

## A Royal Patron of Alchemy

Three hundred years later—a short period in the history of alchemy—James IV founded Scotland's first alchemical laboratory in Stirling Castle. The accounts of the Lord High Treasurer of Scotland from 1501 to 1513 throw much light on the nature and cost of the materials which were used in this laboratory, in the course of attempts to prepare the quinta essencia (Philosopher's Stone, or Elixir of Life). Among these materials were gold, silver, quicksilver, aqua vitæ, salt-petre, sal ammoniac, litharge. salt and sugar. Quicksilver cost 4s. per lb., saltpetre 4s., sal ammoniac 35s., and sugar 1s. 6d. (In order to express these prices approximately in modern currency, a conversion

filling wine and wnisky—cost of s., 8s., and 12s. per quart, respectively; and although in the strange Scotland of James IV whisky must have been a rare drug reserved for medicinal purposes, the king's chief alchemist and his collaborators in the Great Work were able to receive and find uses for curprisingly large amounts of it. The secure and find uses for surprisingly large amounts of it. The prices of apparatus, the wages of the laboratory attendants, and even the cost of the chief alchemist's attire, are detailed in the Treasurer's records.

# A Flying Alchemist

James IV's chief alchemist was a certain John Damian, an ingenious and personable Italian or Frenchman. In order to provide him with an emolument and the necessary leisure for research, the King created him Abbot of Tungland, in Galloway. In 1507, the Abbot's attempts to achieve the Stone were interrupted by another spectacular activity. In the quaint words of Bishop Lesley: "This Abbott tuik in hand to flie with wingis; and to that effect he causet mak ane pair of wingis of fedderis." Equipped with these movable feathered pinions, he took off from the lofty battlements of Stirling Castle for a flight to Paris—"bot shortlie he fell to the ground and brak his thee bane." The courageous experimenter ascribed his downfall "to that thair was sum hen fedderis in the wingis," which yearned and coveted the midden and not the skies: if the wings had been made entirely of eagles' the skies: if the wings had been made entirely of eagles' feathers they would have

exerted a natural tendency to soar into the heavens!

Among occasional visitors to the Stirling laboratory was one Broun, a master "potingair of Sanctandrois." Skilled in the distillation of waters perfumed with essential oils, and also in the primitive sugar "potingry" of those times, this worthy apothecary was the unconscious prototype of the St. Andrews chemists of a later age. To what extent the worthy potingair's materials were used in the search for the quinta essen-cia is not disclosed; but when the brief curtain falls upon him for the last time, on November 23, 1511, the Lord High Treasurer's accounts reveal him as an unequivocal apothecary, supplying remedies for a dis-ordered royal stomach: "Item, to Broun, pottingair of Sanctandrois, for j pund diambra, xlviijs., and for j pund Dragalanga, xvjs., to the King; summa iijli. iiijs."



# The Chief Martyr of Alchemy

Scottish alchemy reached its zenith in the seventeenth century, when the quest of the Philosopher's Stone appears to have become a popular pursuit of many of the noble Scots families. The century opened with the romantic story of Alexander Seton, the mysterious "Cosmopolite," who is said

to have travelled from Scotland to the Continent in 1602, and to have achieved a dramatic series of transmutations of base metals into gold at Enkhuysen, Basel, Strasburg, Frankfurt, Cologne, Hamburg, Helmstedt, and Dresden. Seton shoots across the records of alchemy "like a streamer of the northern morn," between the years 1601 and 1604. Although, within this brief space, his doings have been described with a wealth of circumstantial detail unsurpassed in the literature of alchemy, yet his earlier life remains obscure. Professor J. W. Dienheim of Freiburg im Breisgau wrote a vivid description of a transmutation which he saw Seton perform at Basel. He described Seton as "elderly, intelligent, unusually shy, small but well set up, of fresh colour and cheerful temperament, with a chestnut-brown beard cut in the French fashion, and dressed in a damasked silk tunic." At Munich, Seton succumbed to







Stirling Castle

the charms of the fair daughter of a burgher of that city. Soon afterwards he fell into the hands of the unscrupulous Elector of Saxony, who submitted him to torture in attempts to extort from him the secret of the Stone. Although Seton was rescued from his dungeon in a dramatic manner by the Polish nobleman, Michael Sendivogius, he became the "chief martyr of alchemy" through his death at Cracow in 1604 as a consequence of the cruel treatment he had received. Seton is said to have written the Novum Lunen Chymicum, which was afterwards published anonymously under an anagrammatised form of the name Michael Sendivogius. That this "New Light of Alchymie" could maintain its position as an alchemical "best-seller" throughout the seventeenth and early eighteenth centuries is a circumstance which throws a vivid light upon the mentality of that age; but even Sir Isaac Newton treated the work with great respect and made a manuscript transcript from it, amounting to some 12,000 words.

### The Napiers

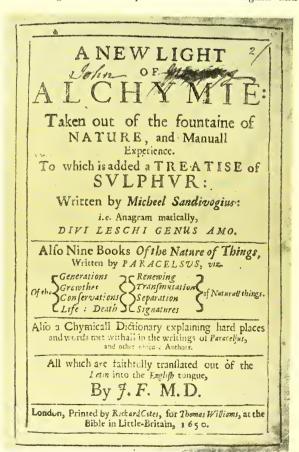
Prominent among the noble Scots families with a strong interest in alchemy were the Napiers. John Napier of Merchiston (1550-1617), the celebrated inventor of logarithms, pursued his early studies in the University of St. Andrews. His father, Sir Archibald Napier, was master of the mint ("General of his Majesty's Cunzie House") to James VI, and possibly on this account John Napier became interested in metals and alchemy. In the years 1607 and 1608 John Napier conferred on alchemy with a German adept, Daniel Müller, "when the sayde Doctor was lyen sicke of the goute in Edinbroughe." Manuscript copies of Napier's own account of these interesting discussions are still extant; one of them is preserved in Patrick Ruthven's alchemical commonplace-book in the Edinburgh University Library. "Upon Saterday the 7 of November 1607 years," begins the account, "I Jhon Napier, fier of Markeston came to confer with Mr. Daniel Muller, Doctor of Medicine, and student in Alchymie anent our phylosophicall matters... findinge that he was diseased of the goute... I removed my compagnie, and sate done befor his beddside. Then he burst foorth in thire wordes: Sr, you ar occupied in alchymie, I have been thir manie years ane verie earnest student therinto, and have attained to the knowledge thereof." It is clear from this passage that Napier had been for some time a serious student of alchemy. The letter proceeds to record Müller's directions for the preparation of the Philosopher's Stone. Two days later, in the course of another interview, Napier put a series of questions to his alchemical preceptor "anainte some doubtes;" and a third conversation, on November 13, 1607, led Napier to remark that the writings of the philosophers are calculated "to illude the vulgar and prophane people, to divert them from the truethe." Like Isaac Newton, in a later age, John Napier had three main interests: mathematics, alchemy, and religion. His "Plaine Discovery of the whole Revelation of Saint John," published at Edinburgh in 1593, was the first imp

of the prophetic and mystical writings of the Bible. John Napier's son, Robert, was also an exponent of alchemy. He left a manuscript treatise on the subject, entitled "The Revelation of the Mystery of the Golden Fleece," which he enjoined his son to keep in his charterchest, since it contained "such misteries as God has apointed to be keipit secrit among a few in all ages whose harts are upright." It is thus evident that at least three successive generations of the Napiers displayed an active interest in alchemy. A similar interest was shown by other Scots families of this period. Thus, Sir David Lindsay, first Earl of Balcarres (1587-1641) was an enthusiastic student of natural philosophy and a seeker after the Philosopher's Stone and the Elixir of Life.

### The Ruthvens

The noble family of Ruthven also calls for mention. Patrick, third Lord Ruthven, who was concerned in the assassination of Rizzio in 1556, had two grandsons—William and Patrick Ruthven, the two youngest sons of the first Earl of Gowrie—who became renowned as exponents of alchemy. Patrick Ruthven (1584-1652), whose alchemical commonplace-book is still extant in the library of

the University of Edinburgh, attained considerable renown as an adept, in spite of a life disturbed by nineteen years' imprisonment in the Tower of London and other troubles. The commonplace-book contains a compendium of extracts from alchemical writers, mostly in Latin, together with copies of letters in English and



Title-page of the English edition of "Novum Lumen Chymicum"





French, and various odd notes. From the list of writers represented it is evident that Patrick Ruthven had a wide acquaintance with alchemical literature. Among the notes is a description of "A Remedie for the plague Leprosie, all fyrie diseases, and other infirmities that wexe mankinde." This is written in the cryptic language of alchemy, and begins: "Take a livinge serpent, nine times crooked, in his naturall cave, feed him with one livinge, uncrooked, impalpable Moone and be cairfull that this admirable creature be overshadowed continually with the beames of the Moone." The most interesting letter in this collection is the above-mentioned copy of John Napier's own account of his conversations with Dr. Daniel Müller at Edinburgh. There is another transcript of a letter written to the Earl of Argyle by Müller, with whom Ruthven seems to have been well acquainted. This bears the following heading: "The coppie of D. M. Letter writen to the Earle of 'ARG' contayning the holl worke ænigmaticallie, as he conceiued it firste out of the former wheels and sypher of Trithemius, and then made it with his owne handes copied by me from the originall Letter under D. M. owne hande copied I saye, an 1629. Octob. 2 per me Patricium Ruthuenum." The directions given in this letter are said to furnish a red powder which will "become Meadsone [medicine] of Metals . . . with this thou mayest instantly heal all manner of diseases of all livinge creatures." The letter ends by adjuring the reader to "think that in this, thou art but Godes stewart, and must give to



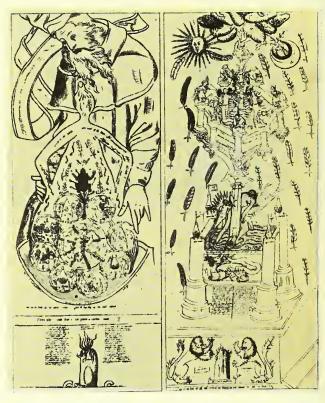
John Napier of Merchiston (1616)

him a full acounte, whow thou haste used this thy talent, for to whom he leandeth much, of him shall much be requyred."

## Scotland's Alchemical Collections

The manuscripts of John and Robert Napier, Patrick Ruthven and Sir George Erskine constitute a valuable series of written memorials to the enthusiasm for alchemy which was formerly shared by many of the noble families of Scotland. Possibly there are other documents of the kind still remaining in the private ownership of Scots families.

Apart from such material, Scotland possesses collections of alchemical literature of surpassing interest and value, of which the two most important are preserved in Glasgow. One of these



The Erskine Roll. The two chief subjects of this first half of the Roll are the operations of the Great Work proceeding in the sealed Vase of Hermes, and the Bath of the Philosophers

is widely known through Professor John Ferguson's "Bibliotheca Chemica" (1906), which is essentially a catalogue of the alchemical, chemical and pharmaceutical books in the collection of Dr. James Young (1811-1883). Ferguson's monumental work is the most valuable of all publications dealing with alchemical bibliography. The Young Collection is kept in the Royal Technical College, Glasgow, and the University of Glasgow owns the still more extensive Ferguson Collection. There are smaller collections in the Universities of St. Andrews, Aberdeen and Edinburgh.

### The Erskine MSS

It was a veritable sign of the times that at the beginning of the eighteenth century Lord Cromarty presented to the Library of the Royal College of Physicians of Edinburgh a collection of six volumes of alchemical manuscripts which his grandfather, Sir George Erskine, had doubtless venerated as repositories of priceless secrets and sacred mysteries, to be guarded from the vulgar with sedulous care. Sir George Erskine, or Areskine, of Innertiel, a brother of the first Earl of Kellie, was born late in the sixteenth century. He was a pupil of the famous George Buchanan, of the University of St. Andrews, and eventually became a judge and Privy Councillor. One of the manuscript volumes, of 776 pages, includes many standard alchemical texts, such as Norton's "Ordinall of Alchimy," Ripley's "Compound of Alchymie," "Bloomefields Blossoms," the pseudo-Roger Bacon's "Speculum Alchemiae," the "Tabula Smaragdina," the "Turba Philosophorum," and works attributed to John Garland, Morienus, Richardus Anglicus and others. Not all the manuscripts conform to this classical standard. Among them is one purporting to give a method of fixing





mercury which it is difficult to regard otherwise than as a hoax or an attempt to achieve a coarse practical joke at the expense of any reader sufficiently gullible and long-suffering to carry the process to its bitter end.

The most remarkable item in the Erskine collection at Edinburgh is a fine copy of a long parchment roll of symbolic



William Davidson

alchemical drawings. interspersed with rhymed lines English Latin. The English rhymes are for the most part sensibly identical with those printed in Elias Ashmole's Theatrum Chemicum of 1652, under the title "Verses belonging to an Emblematicall Scrowle: supposed to be invented by Ripley. Geo: This roll is one of the very few remaining copies of scroll upon which the secret of the Great Work is said to have been represented i n rhymes cryptic and emblems by George Ripley (1415-1490), canon of Bridlington and author of the

famous "Compound of Alchymie." The copy in the Erskine collection was possibly prepared in Germany about a hundred years after Ripley's death.

The Erskine Roll, consisting of eight sections stuck together, measures about 18 ft. 4 inches long by 23 inches wide. The drawings are done mainly in black and red ink relieved with colour. The complicated designs are typical examples of the pictorial symbolism of alchemy, illustrating such conceptions as the conjoining of fixed and volatile, or sophic sulphur and sophic mercury, under the guise of the toad of earth and the feathers of the eagle. The volatile eagle is fixed by eating his wings:

The bird of Hermes is my name, Eatinge my winges to make me tame.

The supposed parallel between the Christian mystery of the Godhead and the alchemical mystery of the Philosopher's Stone is expressed in the lines:

Thou muste parte him in three, And him knyt as the Trinity And make them all there but one Loe, here is the philosophers stone.

The closing words of the Erskine Roll are typical of alchemy; for they are filled with its poetry, its picturesque appeal, and its religious spirit:

For many a man desires this, Both pope, emperour and king I wisse, Prieste and clarke and allsoe fryer, And not soe much bute the very beger. Now Ihs on hich be thy will Keep us from the paynes of hell, And as thou madest days seaven, Bring us to the blisse of heaven, All manner of good men in their degree, Amen Amen, for charytye.

# From Alchemy to Chemistry

Probably the most discerning of all Scottish exponents of alchemy was the Aberdonian, William Davidson, or Davisson (1593-1669?), who was the first of his countrymen to show how to extract a safe and respectable livelihood from the teaching of that "slippery science" which had—in Chaucer's apt words—made many others so bare, Davidson became physician to the King of France and first incumbent of the chair of chemistry at the Jardin du Roi in Paris. The teaching of this first Scots professor of chemistry attracted pupils from many countries, and it was for their benefit that Davidson published, in 1633-35, what was fundamentally an early text-book of chemistry, under the title "Philosophia Pyrotechnia, seu Cursus chymiatricus" ("Pyrotechnic Philosophy, or a Course in Medical Chemistry"). The first three parts of this book are devoted to theoretical and speculative considerations, with references to the Aristotelian and Galenic philosophies; and the fourth part deals with the apparatus and operations of chemistry, especially as applied to medicine, for example, the preparation and medical uses of corrosive sublimate, flowers of benjamin, and the quintessence of wine. Thus, Davidson describes the sublimation of flowers of benjamin, and states that the substance is used for diseases of the lungs, for coughs, and for asthma, as also in the preparation of cosmetics for ladies. "After the same fashion," he continues, "I will proceed to show various specifics which have a distinctive odour and will delight my hearers." This part of the book also contains one of the earliest contributions to crystallography—"a new subject," as Davidson says, "which, so far as I know, none before me has elaborated." Besides crystalls, he includes in his considerations various plant and animal forms, such as the stalks, leaves, and flowers of plants, and the bee and its cells.

The second of two engraved plates illustrating this subject depicts crystals of common salt (sal esculentum), rock salt (sal gemmae), copper sulphate or "vitriol of Venus" (vitriolum aeris seu Veneris), gypsum, Styrian nitre, "hexagonal snow" (nix sexangularis), and "carbonate of ammonia" (sal cornu Cervi); leaves enclosed in pentagons; a bee enclosed in a hexagon; a series of bees' cells shown in section; and a peach

blossom. The first of two inscriptions on this plate states that "as a solid angle cannot be made without three planes, so a natural body cannot be made without salt, sulphur and mercury." The second is a quotation from *The Wisdom of Solomon*: "Thou hast ordered all things in measure and number and weight." This dictum summarises Davidson's views, which are based upon the Pythagorean and Platonic conceptions of the importance of number, geometrical form, and harmonies in the interpretation of Nature and the Cosmos.

Another of Davidson's books, with the curious title Oblatio salis sive Gallia lege salis condita ("The offering of salt, or France seasoned after the law of salt"), was dedicated to Cardinal Richelieu: this professes to explain the nature of salt according to the obscure principles of "pyrotechnic philosophy." Besides his chemical writings, Davidson published several works of medical interest.

Davidson has claims to be called a chemist rather than an alchemist, and in this respect he ranks with his contemporary, Glauber. After the turn of the seventeenth century, indeed, the enthusiasm for



A 17th-century
Alchemist
[From the Erskine MSS]

alchemy began to wane in Scotland, as elsewhere; and the extravagant claims and unintelligible mysticisms of alchemy gradually gave way to a sane and sober consideration of the facts and applications of chemistry. Thus, at the beginning of the eighteenth century a course of what would now be called pharmaceutical chemistry was given at Edinburgh under the auspices of the Incorporation of Surgeons, and in 1713 the first professor of physic and chemistry was appointed at Edinburgh. Fifteen years later, in 1728, appeared the first-born harbinger of scientific chemistry in the person of the eminent Scots chemist, Joseph Black.





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# Poisonings in the Middle Ages

By ERNEST J. PARRY, D.Sc., F.I.C.

It is almost axiomatic that, for the determination of an obscure point in history, one does not consult the "historians." The writers of contemporary memoirs, so often overlooked by the professional writers of "history,"



A symbolic representation of "The Poisoners of Italy" carved on a balustrade in the courtyard of the Chateau de Pierrefonds, built on the ruins of the residence of Louis Duke of Orleans

and original documents still in existence must be consulted if the best solution of a problem is desired. But, unfortunately, when we look into the question of poisoning, or alleged poisoning in the middle and later middle ages,

ing in the middle and later middle ages, even the best authorities are frequently valueless; and for a very good reason. The majority of people, from time to time, have seriously believed in sorcery, witchcraft, and, at times, their close allies, alchemy and poisons, having miraculous possibilities.

It was no uncommon thing to pay a sorcerer to make a waxen image of your enemy; you then stuck a needle into his heart and waited for his death. If you were found out, although he didn't die, you did! Medicine and "chymistry" were such empirical arts that if a given person had a motive and an opportunity to get rid of anyone, and that someone died from some complaint which the "doctors" of the day could not understand, one had enough evidence for a conviction and execution. Whilst it is certain that poisoning in order to get rid of a relative so as to enjoy his wealth or

his title was common enough, there is no doubt that the majority of suggested cases of the kind would not bear investigation, and that the deaths were natural. At all events, the favourite poison, arsenic, became known as "Poudre de succession."

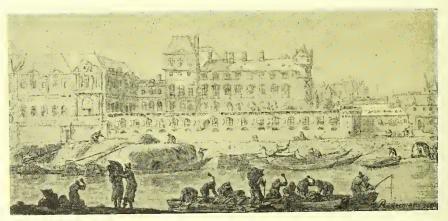
# Alchemists and Magicians

It is estimated that towards the end of the XVIIth. century there were some thousands of so-called "alchemists" and "magicians" in Paris, many of whom were always ready to provide their clients with poisons, aids to beauty, remedies for the results of incontinence, to restore the semblance of lost virginity, or to provide wax figures. A special name, "noueurs d'aiguillettes," was given to those who by magic charms undertook, in order to please a jealous woman, to render a man impotent. In 1679, Louis XIV employed a special "Chambre Ardente" in Paris to investigate cases of suspected poisoning and the like, and many illustrious persons were brought before it. Some of the accused, relying on Court influence, merely ridiculed their interrogation—and successfully. The "sorcerer" and "midwife" La Voisin appears to have been the principal victim, however, and she was duly, and properly, executed.

victim, however, and she was duly, and properly, executed.

A few years ago I was wandering along the old book stalls on the south side of the Seine; I found, and bought for a few francs, an interesting old book entitled "Fastes de France," in four volumes, each containing the name of S. A. Princesse Pierre-Napoleon, whose property they had been. At page 48 of Volume III I find the following interesting note: "1679 (7th April). Meeting at the Arsenal of a chamber of justice for the trial of poisoners. This tribunal was known as the 'chambre des poisons.' [This was the Chambre Ardente.—E. J. P.] Its first acts were to order the arrest of Cardinal Mazarin), the Marchioness de Soissons (niece of Cardinal Mazarin), the Marchioness de Yalluze, and Madame de Polignac, and summonses for personal attendance for the Duchess of Bouillon (another niece of the Cardinal), the Princess de Tingri, La Maréchale de la Ferté, and the Countess du Rouse." I have been able to find in Dulaure's "History of Paris" (1869, Vol. III, 311-312), another Seine-Quay find of mine, that Madame de Soissons was believed to have poisoned her husband, and was later accused of administering poison to the Queen of Spain. Luxembourg was supposed to have poisoned an attendant from whom he had extracted Crown moneys; Madame de Polignac was accused of murdering by poison a valet who knew too much of her guilty love affairs, and so on.

Before speaking of a few cases, I may digress, and point out that a serious classification of poisons embraced the following:



The old Louvre where Catherine de Medici hatched her poison plots



# THE CHEMIST AND DRUGGIST June 25 1938 Special



(1) Venena terminata. These were poisons which would kill the victim at a time selected at the wish of the poisoner—a

week, three months, a year, etc.
(2) Venena temporanea. These had a gradual effect, but without a determinate time limit, so that the victim got worse

and worse gradually and then died.

(3) Venena delibutoria. These were poisons which need not be taken internally, but killed by contact, by means, for example, of "perfumed gloves." It is well known that Catherine de Medici has been accused of attempting to murder Jeanne d'Albret by this method, and it has been rumoured that one of our own kings was poisoned in the same manner.

It is therefore clear that in many cases of mediæval ' the evidence upon which they must be judged is, so far as contemporary facts, knowledge, and deductions are con-

cerned, entirely extrinsic.

### Notorious Poisonings

There are a few notorious cases of so-called poisoning in the XVth. to XVIIth. centuries which caused very considerable sensation at the time, and in which many or most of the people



Louis XI at his devotions

believed, which to-day are found to have not the remotest evidence to support them-and there is no doubt that they were merely natural deaths. Let us commence with Louis XI, as both accused and later as a potential victim. At p. 217 of "Les Memoires de Messire Philippe de Commines—French edition of 1661" news is brought to Louis XI of the death of his brother the Dules of Courses when we have the property of the p death of his brother, the Duke of Guienne, who was heir to the throne, and who had behaved very treasonably towards the King. The bitter enemy of Louis, Charles the Bold, the last Valois Duke of Burgundy, shortly afterwards wrote letters. from his camp before Beauvais in which he accuses the King of having caused his brother to be poisoned, and that he had employed for the purpose a friar named Jourdain Faure, and one de la Roche, an esquire of his kitchen. The poison was said to have been conveyed to the Duke in a peach, which not only killed him, but also his mistress. Mezeray ("History of France, 1683") at p. 495 says: "From Guyenne the King passed into Bretagne to force the Duke to renounce the League and surrender the monk to him who had poyson'd Monsieur. Monsieur. The monk was found dead in prison, the Devil, as was said, having broken his neck the night before that day wherein they were to pronounce sentence. This was what the King desired that so the proof of the crime might perish with the poysoner.

There is only one contemporary writer—and he a partisan of the Duke of Burgundy, Jacques-du-Clercq—who ever affirmed that Louis XI was a party to this crime—if crime it was. Pierre Champion, who has examined every material document in regard to Louis XI, dismisses both his complicity and the

story of the poisoned peach as purely legendary ("Louis XI," Pierre Champion, Paris, 1928, Vol 2, pp. 124 and 184). But poison or poison legends are to follow poor Louis to the end. Pp. 408-9 of "The Chronicles of Enguerrand de Monstrelet," Vol. II, Johne's translation, 1853, make very interesting reading. I may mention that Monstrelet, who wrote in the XVth. century, stopped some years before the date in question and his chronicles were completed by an unknown contemporary writer. Here we are told that Charles the Bold of Burgundy, finding that he could not destroy the Kingdom of France by open force, decided to try and do so by having the King poisoned. So, says Monstrelet, he employed Ythier Marchant, who had been in the service of the late Duke of Guienne, and one of his servants named Jehan Hardy to carry out the business. It is nothing to do with poisoning, of course, but it is strange that Villon in verse 11 of his small "Testament" bequeathes to Master Ythier Marchant, "to whom I owe much, my short sword of keen steel, now held in pawn for a debt of eightpence." And again in the "Grant Testament," at verse 84, he bequeathes to the same—Ythier Marchant-"this lay of his dead love, whose name I give not, or he would loathe me":—

"Mort, j'appelle de ta rigueur Qui m'as ma maistresse ravie Et n'es pas encore assouvie Se tu ne me tiens en longueur Onc puis n'eus force ne vigueur Mais que te nuysoit elle en vie

Deux estions et n'avions qu'ung cuer S'il est mort, force est que devie Voire, ou que je vive sans vie Comme les images, pur cuer Mort.

I would translate this, but not in verse: "Death, thou has been cruel and taken my beloved from me and not contented with that, keepest my pain with me, so that I have no vigour or strength. But never in her life, O Death, did she harm you. One heart between the two had we, and if that heart be dead, I must live an empty life—like a dead reflection of myself, O

Returning to Monstrelet, Hardy as the servitor was naturally entrusted with the business and "on his arrival at Amboise, forgetting that the King had formerly kindly received him and given him great sums of money, in order to execute his damnable enterprise, he addressed himself to a person who had the charge of making sauces in the royal kitchen, with whom Hardy was acquainted during the time they were both in the service of the Duke of Guienne. Hardy communicated to him his plan and offered him twenty thousand crowns if he would assist him to accomplish it. The saucemaker listened to him, but said he could not engage in the business without the consent of Colinet, the King's head cook, who had likewise been in the same service with themselves. He promised to mention the matter to Colinet and urge him to join them, but desired Hardy to give him the poisons to show the head



Place de Greve in the old days where poisoners were frequently executed

Soon after, the saucemaker and head cook, having discussed the business together, went and informed the King





of the plot, who was very much alarmed, but most honourably and handsomely rewarded them for having discovered it."



Poison draught being administered to the Countess of Armagnac

Hardy appears to have been the only one brought to justice for this attempt at poisoning, and was duly quartered alive by four horses on the Place de Grève, now the Place Hôtel de Ville. Louis' father, Charles VII, had died of starvation, as he feared being poisoned—especially at his son's instigation—and Louis XI himself spent his last years in the Château of Plessis-les-Tours, just outside the town of Tours, which was guarded as a fortress, so fearful was he of assassination either by force or by poison. An interesting plot for the poisoning of Louis XI, attributed to the Prince of Orange about 1479, is related by Barante (Histoire des Ducs de Bourgoyne—1839 edition, Vol. xi, p. 236). The Prince confided in an apothecary of Clermont and arranged with him to poison the King. He gave the apothecary a tin flask filled with a liquid, and said to him, "The King goes every day to mass and he generally devoutly kisses the ground near the corner of the altar. Dip the end of a candle in this liquid (for to touch it with the hand would kill you) and then rub the spot where the King will place his lips." Later the Prince began to distrust the apothecary, so he had him arrested and entrusted the assassination to another man. The apothecary escaped and warned the King in time. One of the brutal acts of Louis XI was the determination to extinguish the whole family of his enemy, the Count of Armagnac. When the Count had been assassinated, he ordered that poison was to be administered to the Countess, who was enciente. It is probable that she was told that the draught she was given to drink would only kill the child. Actually it killed her as well. In the accompanying illustration it will be seen that the "sentence" is signed Loys, as Louis always signed his name. This illustration is from the 1844 edition of Anguetil's History of France.

the 1844 edition of Anquetil's History of France.

I will only just mention the accusation against the great Jacques Coeur, the one who, second only to Jeanne d'Arc, was responsible for driving the English out of France, of having poisoned Agnes Sorel (or, better, Soreau), the faithful mistress of Charles VII. He managed to escape with his head on his shoulders, but all his property was confiscated. It is well established that she died in childbirth. Go to Loches if you wish to see her beautiful tombstone and to Bourges if you would enjoy one of the most beautiful buildings of the fifteenth century—the house which Coeur built for himself and which is still in splendid repair.

Poisoned by Cold Water?

In August 1536 François, Dauphin, son of François I, Le Roi Chevalier, was playing tennis, or a similar game (jeu de paume), in the meadow of Ainet at Lyons. Becoming very hot, he asked his page to bring him a goblet of cold water. His page, Sébastien de Montecuculli, brought him what he asked for, and he drank the contents straight off. What is almost a certain natural illness followed, and in three days the Dauphin was dead. He was in poor health, never having recovered from the effects of his long imprisonment in Spain, and the only "evidence" of his having been poisoned was that he had died so quickly, and that Montecuculli was reported to possess a book on poisons. The Dauphin had six days before this taken into his service as page, Pierre de Ronsard, later to be known as one of France's most beautiful poets. Ronsard was present at the autopsy and wrote "I saw his body opened, daring to feast my eyes on his lungs, his heart, his blood." As Montecuculli was an Italian and had been brought to France by Catherine de Medici, who had married the younger brother of the Dauphin, Henri, so that only François stood between her husband and the throne, it was easy to establish motive—to bring Henri, and Catherine, his old mistress, to the throne. There exists an old document dated 1536, entitled "Diction prononcé a la condempnation de l'empoisonneur du Dauphin," of which I possess a copy. Montecuculli was tried and condemned to be quartered alive, a sentence which was duly carried out. It is true that under torture he admitted the offence, but afterwards recanted. The condemnation refers to the "report and opinion of physicians surgeons, barbers, and apothecaries . . . it is determined that the said Count Sébastiano de Montecuculli is found guilty and convicted of having poisoned the late Françoys, Dauphin of Vienne, duke of Brittany, and eldest son of the King, by "poudre d'arsigni sublimê," administered in a red earthenware cup." It is practically certain that Montecuculli was entirely innocent.



Portrait of Agnes Sorel





I now pass on to the well-known poisonings of the Marchioness of Brinvilliers, of whose crimes there is little doubt. But the ramifications of the Brinvilliers story are sufficiently romantic to justify my telling the details at some length. To make up this story fragments have been collected from many different works, which I have tried to piece together in somewhat of an intelligent fashion. It all started this way. Marie Maceleine d'Aubray married at an early age the Marquis de Brinvilliers—a Gobelin connected with the founders of the famous tapestry works. It is highly improbable that she knew anything about poisons till a later date, but she was dissolute, and in her confession she admitted—or boasted—that she had started an immoral life at the age of seven. Her husband was very complaisant, and as was common at the time—they were married in 1651—shut his eyes to the intrigue she carried on with the young Seigneur de Sainte Croix, with whom she fell violently in love. Her father, however, objected to this liaison,



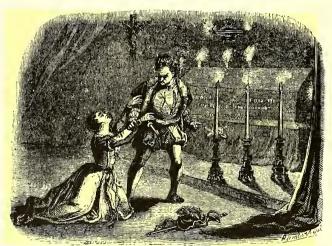
The Bastille (from a cardboard model)

and in 1665 Sainte Croix was arrested and taken to the Bastille. It was here and now that the train was laid for the future awful tragedies. The Bastille was somewhat crowded, and Sainte Croix was placed in a cell already occupied by another prisoner. This prisoner was the famous Italian poisoner Exili. During the year that the two remained together in prison, Exili taught Sainte Croix all he knew, and the latter came out of prison a skilled poisoner. For in those days it was believed to require great skill and chemical knowledge to know how to poison. In all probability he acquired no other knowledge than how to use arsenic in greater or less doses, and possibly corrosive sublimate. Although it is difficult, or impossible, to find details of what went on in the prison cell, we can find what was probably believed to have gone on in another way.

probably believed to have gone on in another way.

In the Histoire de la Bastille (1844) by Arnould, Pujol and Maquet is set out what purported to happen a little later, when Exili was imprisoned with Francis Seldon as his cell companion, after Sainte Croix had been released. We are told that with a little iron pot, etc., using the bones left from their meals, with salt, sugar and vinegar and some substance Exili had on him (which, of course, was impossible, as he had been rigorously searched on entering the prison), the latter was able to manufacture a poison which they tested out on rats, who either dropped down dead directly they tasted it or stood up and fought for a time and then died. Feigning illness, the prison apothecary give them remedies—for a stomach ache, for example—which they used to make the poisons and antidotes. All this rubbish is in 1844 offered to intelligent readers in what purports to be a serious work in eight large volumes! Sainte Croix gets busy directly he leaves the Bastille, and "teaches" madame the art of poisoning and provides her with the poison. She tries it out on poor patients in the Hôtel Dieu, administering it in food given under the garb of charity—and she is so religious and devoted as to visit the hospital as a "lady nurse" and so administer the poison and watch its effects. Sainte Croix has a room for use as a "laboratory" in the Cul de Sac des Marchands de Chevaux, just off the Place Maubert, and carries on his side of the experiments. If one crosses from the Island, just by Nôtre Dame, and walks southwards down the Rue St. Jacques, this spot is just off to the left, and within a stone's throw of the "Street of the Fishing Cat" made so immortal by the title of a recent novel. When she feels ready she poisons her father, her brothers and sisters—and doubtless many others. Her main object was to get hold of their money to help the extravagant life of debauchery she had resumed with Sainte Croix. Sainte Croix appears to have cooled in his ardour for her, because she tried several times to poison her husband—but Sainte Croix gave him antidotes every time, as he was not anxious to marry her, as he knew he would have to do if she became a widow. In 1872 Sainte Croix died—it is said in the act of experimenting with a new poison with a glass mask on. This fell off and—it is said—the fumes killed him. Madame de Brinvilliers fled and took refuge in a convent at Liége, where she was found, and, vile as she was, there are few cases on record where such a foul trick was resorted to by a detective disguised as an Abbé, to encompass her arrest. She was condemned, and in July 1676 was beheaded and her body burned. Under torture she would not—or could not—reveal any of the secrets of the poisons other than that they were "simply rarefied arsenic" and that toads entered into the composition of some of them. She said that they were made for her by Christopher Glazer, the King's apothecary. This was no doubt true, and Glazer had to leave the country in disgrace.

The experimental work and so-called analyses were entrusted to one Guy Simon. He reported in the vague way we should expect: that the poison eludes investigation, defies analysis and sets at naught the skill of the best physicians. All ordinary rules are at fault in regard to it, and the commonest axioms lead to absurd results. "In water the weight of the ordinary poison carries it to the bottom; place it on the top of the water and it is at once precipitated in obedience to the simplest law of nature," and so on with a lot more jargon. "This poison of Sainte Croix has been subjected to all these tests, with the most baffling results; it swims upon the surface of the water instead of being precipitated at the bottom," and so on. According to Dumas in his "Celebrated Crimes," "these experiments while they proved that Sainte Croix was a most expert along a long recipitation to the surface of the water instead of the sainted control of the sainted contr expert chemist, also gave birth to the thought that he did not practise that science for nothing." Although opium was, no doubt, used as a poison, there are few cases recorded of This is probably because death from a narcotic must inevitably attract attention. But in 1598 Beatrice Cenci and her stepmother were, one September evening, at supper with Francesco Cenci, father of the one and husband of the other. Francesco, as is well known, had forced his young daughter to live a life of vice with him, and so earned the hatred of the two women. Beatrice, whilst the old man was not looking, poured a decoction of opium into his wine. The old man was soon fast asleep, and two hired assassins soon arrived and murdered him in his unconscious condition, by driving nails into his brain. Both women paid for this crime—and were



The Comtesse de Chateaubriand in the Death Chamber

shortly afterwards decapitated. The Comtesse de Chateaubriand had been forgiven once by her husband for her adultery with the King, François I. But as this liaison was resumed later, the Count decided upon revenge. He could not lift his hand against his King, so his revenge was upon his wife. He closed his château to all visitors and took his wife into a





locked room, draped in black, with candles continually burning, surrounding her coffin, upon which was inscribed "Francoise de Foix, Comtesse de Chateaubriand; priez pour elle." In this "tomb" she was kept for six months, at the end of which the Count gave her a draught of poison to end her misery. Although this is a popular legend in Brittany, it cannot be said to be authentically confirmed.

I will only draw attention to two more cases, and then I have finished. But they are both of such interest that I cannot omit them. Alexander VI, the Borgia Pope—the foulest of a good many foul Popes—and his son Cæsar Borgia found several high Church dignitaries and others in their way. So they decided together to get rid of them by poison. A supper was given at a villa near the Vatican, to which these enemies were invited. Cæsar himself prepared two bottles of poisoned wine and handed them to the Pope's butler, telling him to put them specially aside as they were for the Pope's own use, and were not to be served without special instructions from either himself or the Pope. The Pope and he, a little later, arrived at the villa, and were very hot after an uphill walk, and requested a servant to bring them wine to drink. The butler was absent at the moment, and the servant, having heard him say that the two bottles in question were for the Pope, opened one and handed the two poisoners glasses of their own poisoned wine. Alexander VI was dead very quickly, but Cæsar Borgia was younger and perhaps had taken less than his father and, after a terrible illness, recovered. It seems almost impossible to believe, but one of the "antidotes" upon which Cæsar relied was the following: Four posts were firmly attached to the floor of his room; every morning a bullock was brought into his bedroom and placed on his back, each leg being tied to one of the posts. His belly was cut open, his intestines extracted, and Cæsar crawled in through the opening and soaked himself in the dying bullock's blood. He seriously believed that this saved his life. It was said by the old "authorities" that the Borgias used two types of poison—a powder and a liquid. The powder area liquid. liquid. The powder was known as canturelle and was undoubtedly arsenic pure or diluted. The liquid was said to have been prepared by forcing a wild boar to swallow a very large dose of arsenic. He was then suspended by his hind legs and the foam and saliva from his mouth collected and sealed up in a flask! In 1667 the Marquise de Ganges was

offered the choice of death by the sword, by pistol, or by poison. I do not propose to make any comment on this case, but will just reproduce what contemporary historians have said. She chose poison, and drank the contents of the glass that was offered to her. A few drops fell upon her arm and burned the skin as if it were a red hot coal. "The infemal poison was composed of arsenic and corrosive sublimate dissolved in nitric acid." The Marquise escaped from the house, was found again, and received seven sword wounds in the back; at the seventh the sword broke; half was left sticking if her body. Her death ensued nineteen days after the poison was taken. The physicians, on opening her body, "found the stomach and intestines burned, and the brain blackened." They reported that none of the sword wounds was fatal, but that the "hellish compound would have killed a lioness in an hour or two"—and they found that her death was due to the poison! She had survived her dose nineteen days! One result of the late seventeenth century poisonings in France was a new law restricting the sale of poisons, forming a sort of Poisons Register, which did in fact cause a sharp falling off in poisoning cases throughout the whole of France.

cases throughout the whole of France.

I recently found an old book in six volumes, entitled "Tristan le Voyageur," in which the traveller is made to traverse France in the fourteenth century and describe its manners, peculiarities and customs. I translate the following lines (Vol. 2, p. 446), which may form a fitting conclusion to this already too long article.

lines (Vol. 2, p. 446), which may form a fitting conclusion to this already too-long article.

"Charles the Bad (King of Navarre, 1332-1387) had resolved to poison the King and all the princes. He confided in a wandering minstrel, Gauthier the Harper, who was an Englishman, and also in his servant Robert de Wondreton. When he had explained what was to be done, he said to the latter 'You will do as follows: there is a substance called sublimated arsenic; if a man eats as much as equals a pea in size, he will die. You will find it in Pamplona (the capital of old Navarre), at Bordeaux, at Bayonne, and in all the towns you pass through at the shops of the apothecaries. Buy some and powder it. When you go into the houses of the King, his brother the Count of Valois, the Dukes of Berri, Burgundy and Bourbon, and other great lords, where you will have an entry, do your best to get into the kitchen, the larder, the cellar or any other place which appears suitable; put some of the powder in the soups, meats and wine of these lords."

# Early Eyeshades

HE origin of more than one of the articles variously classed as surgical appliances or druggists' sundries remains obscure, in spite of occasional spurts of research on the part of those interested. A good instance is the eyeshade, semicircular in form, covered with black fabric on one side and green on the other, and furnished with an elastic attachment long enough to pass round the head. The only quotation allotted to ''eye-shade'' in the Oxford English Dictionary is dated 1866, and presumably refers to the type of shade just indicated, which preceded the celluloid varieties. But a colour print depicting a scene in a Westminster election specifically dated "June 18th, 1818," and published at 27 St. James's Street in the same month, includes a representation of a black eyeshade almost identical in form with the later shade still familiar. The subject-matter of the print is a meeting at the hustings; and as relatively few people now living can testify to having witnessed such a meeting, a few lines from the thirteenth chapter of Dickens's "Pickwick" (to adopt the short title of his early masterpiece) seem to be relevant. It need hardly be explained that the chapter narrates an event in the Eatanswill election:

"He [Mr. Pickwick] then felt himself forced up some wooden steps by the persons from behind; and on removing his hat, found himself surrounded by his friends, in the very front of the left hand side of the hustings. The right was reserved for the Buff party, and the centre for the Mayor and his officers; one of whom—the fat crier of Eatanswill—was ringing an enormous bell, by way of commanding silence, while Mr. Horatio Fizkin, and the Honourable Samuel Slum-

key, with their hands upon their hearts, were bowing with the utmost affability to the troubled sea of heads that inundated the open space in front; and from whence arose a
storm of groans, and shouts, and yells, and hootings, that
would have done honour to an earthquake. . . The speeches
of the two candidates, though differing in every other respect,
afforded a beautiful tribute to the merit and high worth of
the electors of Eatanswill. . . . There was a show of hands;
and the Mayor decided in favour of the Honourable Samuel
Slumkey, of Slumkey Hall. Horatio Fizkin, Esquire, of
Fizkin Lodge, demanded a poll, and a poll was fixed
accordingly."

The Westminster print relates to the second day of the election, the result of the first day's polling being shown on a post. The Mayor or other returning officer is not distinguishable, if present, from the other occupants of the hustings, and it is probable that his presence was not required after he had opened the proceedings. A candidate, an Army officer, faces the crowd with a gratified expression—his name is, in fact, second in the poll at the moment out of six—while one of his supporters delivers a speech. The officer is wearing over his right eye a black, semicircular shade with a broad black ribbon passing round the head: the width of the ribbon may, of course, have been exaggerated by the artist. It may reasonably be inferred that the injury to his eye has been caused by a skilfully aimed missile thrown by a political opponent. Is there any earlier record of the use of the eyeshade? James's Medicinal Dictionary (1743-45) is silent on this appliance, though bandages for one or both eyes are described.



# The Second Book of Rates

By HOWARD BAYLES

ΔS was duly noted in the memoranda submitted to the Select Committee on Medicine Stamp Duties on behalf of the Board of Customs and Excise in November 1936, the Schedule to the Medicines Stamp Act, 1812, exempts from duty all drugs named or contained in the Book of Rates of the year 1660 and in "an additional Book of Rates of Goods and Merchandises usually imported and not particularly rated in the Book of Rates referred to in the Act of Tonnage and Poundage made in the Twelfth Year of the Reign of King Charles the Second, with Rules, Orders, and Regulations signed

by the Right Honourable Spencer Compton, Speaker of the Honourable House of Commons, and mentioned and referred to by an Act made in the Eleventh Year of the Reign of His Majesty King George the First.'' The first Book of Rates contained 281 "drugs," the second eighty-six; but the concession in respect of medicinestamp duty was not so considerable as these figures imply, several of the substances having even in 1812 become obsolete.

Both these Books of Rates include many classes of goods besides drugs; and the preamble to the Act of II Geo. I. c. 7 (1724) sets forth, after tracing the subsequent legislative history of the items mentioned in the 1660 Book of Rates, the reason for then compiling another such

"It has been found by experience that the values of the several sorts of goods usually imported, and not rated in the said book of rates, which are sworn to or affirmed by the importers, according to which the said subsidies and other duties are to be paid, have been very unequal, some persons greatly undervaluing the same, to the detriment of the revenue and dis-couragement of the fair

Section I of the Act to which the 1724 Book of Rates was appended repealed any entries in the 1660 Book that were taken over by the new Book as from March 25, 1725. An import duty of 20 per cent. imposed on certain goods by an Act of the tenth year of Anne's reign ceased similarly.

Familiarity with those of the items in this list that are obsolete varies with the extent of one's reading. A few of the least-known have accordingly been selected for brief de-

Auriculæ Judæ, Jew's ear(s), was a fungus gathered from the trunk of the elder. James's Dictionary states:—"It is very resolutive, proper for Tumors, and for Inflammations of the Throat, and other Parts, being broken and applied thereto.

It should be used internally with Caution, for it is a sort of Poison. . . . It is directed to be boil'd in Milk, or macerated in

Vinegar, in order to make a Gargle. ... ''
Chamæpitys is ground-pine (Ajuga Chamæpitys), the leaves of which were reputed to cure "the yellow Jaundice" in seven days and sciatica in forty days; they were also said to be warming and strengthening to the nerves.

Dens Apri, boar's tooth, was regarded as a specific in pleurisy and a cure for quinsy.

Dens Equi Marini, the tooth of the sea horse (described by

James as a species of hip-popotamus), was made into a ring to be worn as a prophylactic against cramp.

Lapis Ostiocolla (or Lapis Osteocolla) " is a Substance of a seemingly middle Nature between Earth and Stone, white, friable, crustaceous, fabulous; in Figure resembling a Bone, and growing out of sandy Places, and other stony Soils: It is highly commended for the speedy Conglutination of Bones.

Lapis Rubinus and Lapis Smaragdus are the ruby and emerald respectively; the former guarded against poison "being worn or drank," and the latter stopped fluxes of all kinds, it was believed

Radix Cassuminiar has the charm of the obscure. Pechey

charm of the obscure. Fechey writes in the second edition (1707) of his "Compleat Herbal":—
"To give a Description of the Herb... is not in my power; having receiv'd no Account along with it from my Brother, Fector to the Honour-Factor to the Honourable East-India Company. Only, thus much is most certain; 'tis a plant esteem'd even by Princes themselves; some part of what I have being taken out of the King of Golconda's Garden, one of the greatest and wealthiest Princes in India. And the Priests . . . do many and Great Cures with it. . . .

After another two pages he concludes: "Mr. Marlow, in King-street, near Guildhall, and [?an] excellent Apothecary, and a curious Man, shew'd me Cassuminiar, and confirm'd the Use and Virtues abovemention'd.

James is equally vague as to the origin of this remedy:—

"This is a Root which comes from the East-Indies, and has been much in Request of late Years. . . . It is not known what Plant this is the Root of; but it is very much commended as an excellent nervous Medicine. . . . Its distill'd Oil may also be used as a Liniment.'

Quincy, in the fourth edition (1722) of his "Pharmacopæia Officinalis et Extemporanea," states that the drug is "made



The Rt. Hon. Spencer Compton, from a portrait by Sir G. Kneller



# THE CHEMIST AND DRUGGIST Special

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of a Species of Galangals." The Index Kewensis decides that

it is Zingiber Cassamunar.
Ungulæ Alcis, elk hoofs, were, according to Quincy,
'esteemed of mighty Efficacy in Distempers of the Head . . . for they say, whenever it [the elk] ails any thing in the Head, it lies in such a Posture as to keep one of the Tips of a Hoof in its Ear, which after some time effects a Cure."

## The List of Drugs

The List of Drugs		
The list of items named "drugs" in the	Book	ie
follows:—	DOOK	
Adopt IIrai the pound		~
Adeps Ursi, the pound Ambra liquida, the pound Aqua fortis (for dyers' use), the bottle, containing 4 ga Auriculæ Judæ, the pound Bacæ Alkakengi, the pound Balsamum Copaiva, the pound Barbadoes tar, the pound Bitumen Judaicum, the pound Capita Papaverum, the thousand Chanæpitys, the pound Chelæ Cancrorum, the pound Cinnibaris Nativa, not of the East-India, the pound Colophonia, the C. wt. containing 112 lb. Cornu Cervi Calcinatum, the pound Cornu Unicornu, each Cortex Elatheriæ, the C. wt. containing 112 lb. Cortex Cariophyllorum, the pound Cortex Peruvianus, or Jesuits bark, the pound Cowitch, the pound Cranium Humanum, each Cranium of Tartar (for dyers' use), the C. wt. conta		o 8
Aqua fortis (for dyers' use), the bottle, containing 4 ga	llons	2 5
Auriculæ Judæ, the pound		0 I
Balsamum Copaiya the pound	• •	0 I 0 2
Barbadoes tar, the pound		0 2
Bitumen Judaicum, the pound		0 0
Capita Papaverum, the thousand		0 5
Chamæpitys, the pound		0 0
Chelæ Cancrorum, the pound	• •	0 0
Colombonia the C wt containing 112 lb		0 IO
Cornu Cervi Calcinatum, the pound	• •	0 0
Cornu Unicornu, each		0 10
Cortex Elatheriæ, the C. wt. containing 112 lb		<b>I</b> 10
Cortex Limonum vel Aurantiorum, the pound		0 0
Cortex Cariophyllorum, the pound		0 0
Cowitch the pound		0 2 0 I
Cranium Humanum, each		0 I
Cranium of Tartar (for dyers' use), the C. wt. conta	ining	
Cranium of Tartar (for dyers' use), the C. wt. conta 112 lb.  Dens Apri, the pound  Dens Equi Marini, the pound  Eboris Rasuræ, the pound  Essence of lemons, the pound  Fechia Brugiata, the C. wt. containing 112 lb.  Flores Chamæmeli, the pound  Granadilla Peruviana, the pound  Granadilla Peruviana, the pound  Lapis Hibernicus, the C. wt. containing 112 lb.  Lapis Hyacinthi, the pound		2 10
Dens Apri, the pound		0 2
Dens Equi Marini, the pound		0 2
Epons Rasuræ, the pound	• •	0 0
Fechia Brugiata the C wt containing 112 lb		0 0
Flores Chamæmeli, the pound		0 0
Flores Meliloti, the pound		0 0
Granadilla Peruviana, the pound		0 4
Gummi Copal, the pound		0 0
Lapis Hibernicus, the C. wt. containing 112 lb		I 0
Lapis Hyacinthi, the pound		0 4 0 I
Lapis Hibernicus, the C. wt. containing 112 lb.  Lapis Hyacinthi, the pound  Lapis Magnetis, the pound  Lapis Nephriticus, the pound  Lapis Sotiocolla, the pound  Lapis Rubinus, the pound  Lapis Sapphirus, the pound  Lapis Sapphirus, the pound  Lapis Spongiæ, the pound  Lapis Topagæ, the pound  Lapis Topagæ, the pound  Lapis Topagæ, the pound  Mother of Pearl shells, not of East-India, the pound		0 5
Lapis Ostiocolla, the pound		0 0
Lapis Rubinus, the pound		o I
Lapis Sapphirus, the pound		O I
Lapis Smaragdus, the pound Lapis Spongiæ, the pound Lapis Topagæ, the pound Mother of Pearl shells, not of East-India, the pound Oleum Annisi, the pound Oleum Cariophyllorum, the pound Oleum Cariophyllorum, the pound Oleum Cinnamomi, the ounce troy Oleum Cinyni, the pound Oleum Juniperi, the pound Oleum Nucis Muscatæ liquidum, the pound Oleum Origani, the pound Oleum Palmæ, the C. wt. containing 112 lb. Oleum Rhodii, the pound Oleum Thymæ, the pound	• •	o I
Lapis Spongiæ, the pound		0 I
Mother of Pearl shells not of Fast-India the pound		0 I
Oleum Annisi, the pound		0 5
Oleum Cariophyllorum, the pound		0_10
Oleum Carui, the pound		0 5
Oleum Cinnamomi, the ounce troy		0 5
Oleum Lupiperi the pound		0 4 0 2
Oleum Nucis Muscatæ liquidum the pound		o 2 o 6
Oleum Origani, the pound		
Oleum Palmæ, the C. wt. containing 112 lb		I 0
Oleum Rhodii, the pound		
Oleum Rhodii, the pound		
Oleum Vitrioli, the pound		0 5 0 I
Orange Jessamine, or other perfumed oils, not other	rwise	0 1
rated, the pound Chymical oils not otherwise rated, the pound Pompholix, the pound Rhinehurst, the C. wt. containing 112 lb. Radix Bistortæ, the C. wt. containing 112 lb. Padix Consumption and of the Fact India		0 5
Chymical oils not otherwise rated, the pound		0 2
Pompholix, the pound		
Rhinehurst, the C. wt. containing 112 lb.		I 0
Padix Cassuminian not of the Fast India, the pound		0 10
Radix Cassuminiar, not of the East-India, the pound Radix Enulæ Campanæ, the C. wt. containing 112 lb.		I 0
Radix Eringii, the pound		0 0
Radiy Hypocacuanæ the pound		0 6
Radix Mei Athamannel, the pound		0 0
Radix Phu, the bound		0 0
		0 2
Radix Tormentillæ, the C. wt. containing 112 lb		0 10
Rezina Jalapii, the pound		0 10
Salop, not of the East-India, the pound		O I
Sal Prunellæ, the pound		0 0
Sal Prunellæ, the pound		0 4
Sal lamarisca, the pound		0 5

				£ s.	d.	
Sal Tartari, the pound				o I	0/	
Sal Vitrioli, the pound				o I	9	
Sal Volatile Armoniaci, the pound				0 2	ø	
Sal Volatile Cornu Cervi, the pound				0 2	Þ	
Saccharum Saturni, the pound				0 1	0	
Sevum Cervinum, the pound				0 0	6	
Spiritus Cornu Cervi, the pound		• •				
Spiritus Vitrioli, the pound						
Sulphur Vivum, the C. wt. containing		• •				
Tartarum Vitriolatum, the pound			• •	0 1	0	
Turpentine of Germany, or from any of				/		
wise rated, the C. wt. containing I			• •			
Ungulæ Alcis, the hundred hoofs				0 10		
A few articles sold by chemists h	ave beer	ı placed	d in	oth	ner	
parts of the Book-e.g., "Liquorish in powder" (under						
"Grocery"), "Oil, called ordin	ary oil	of olive	es.''	soa	D.	
hard and soft "of all sorts," Hungary water, and "Spaw						
water ' in baskets each containing						
ing 3 pints each flask."	, 1,0 110	DALU XX		11000	-	
001						
The Creeker of the House of	Commor	o who	0 0	arter.	nit	

The Speaker of the House of Commons whose portrait accompanies this article was the third son of the third Earl of Northampton. He was a member of Parliament from 1713 to 1727, and was Speaker for the greater part of that period. In 1728 he was created Baron Wilmington; an earldom followed in 1730. He died at the age of seventy in 1743.

# An Ancient Mortar

HE skill of the mediæval metal craftsmen is illustrated by the carvings on this ancient mortar, which dates back to 1308. It is the mortar of the Infirmary of the Abbey of St. Mary, York, and is counted among the antiquities of the museum of the Yorkshire Philosophical Society. It is made of bell-metal, weighs seventy-six pounds and bears the following inscriptions:—(Upper rim) Mortarium Sancti Johannis Evangelistæ de Infirmaria Beatæ Mariæ Ebor; (lower rim) Frater Willielmus de Towthorp me fecit, A.D. MCCCVIII. Of its history during nearly two centuries after the dissolution of the Abbey nothing is known. The earliest record of it is believed to be contained in an anony-



mous letter to Gent, published by him in his "History of Hull," dated 1734, from which it appears, after having of Hull," dated 1734, from which it appears, after having been long in the possession of the Fairfax family, it passed into the hands of Mr. Smith, a bell founder in York. In the English translation of Camden's "Britannia," published in 1789, Gough says "it was lately in the hands of an apothecary at Selby: after whose death all traces of it were lost." In 1811 it was discovered by Mr. Rudder, at Birmingham. He presented it to Mr. Blount, a surgeon in Birmingham, after whose death it was sold by auction in 1835 to Mr. Kenafter whose death it was sold by auction in 1835 to Mr. Kenrick, of West Bromwich, for the purpose of restoring it to the remains of the religious establishment to which it originally belonged.



# Linnaus and the Linnean Society

By DAVID HOOPER, LL.D., F.I.C., Ph.C.

In May of this year the Linnean Society of London celebrated its 150th anniversary. This Society was founded in 1788 and has borne the name of the world's greatest botanist. For centuries before Linnæus plants were studied chiefly by men who, beginning with a medical career, branched off into vegetable materia medica. The results of these researches in mediæval times were published in the form of herbals. While these volumes possess a remarkable fund of interesting and curious information, they lack uniformity of nomenclature and classification. Taking the herbal of Otto Brunfels (1489-1534) and that of Leonard Fuchs (1501-1566) as typical examples, Dr. T. A. Sprague observed that the names of the plants were used more or less indifferently, and that the classification was based on obvious vegetative characters or



Linnæus From the medallion in the Library of the Linnean Society

general fancies, some-times on medicinal properties and only seldom on the inflorescence or flowers. Fuchs' classification was pharmaceutical, economic or philologi-cal. It was impossible to study any depart-ment of natural history under such limitations, hence it was left to Linnæus to lay the foundation of a scientific classification of plants. The classes and orders of this system are taken exclusively from the essential organs of reproduction, the sexual system of which Linnæus had just

before established; hence this artificial scheme is commonly termed the sexual system. This is an extremely ingenious and valuable system of classification. It is remarkable that he brought it to its greatest height and also laid the foundations for the natural system which he himself said was the "Alpha and Omega among desirable botanic objects." Fellows of the Linnean Society are not the only people indebted to the work of such a man; horticulturists, forest officers, medical practitioners, druggists and travellers all over the world would unite with the Society in paying tribute to his memory.

# Life of the "Flower-King"

Linnæus was born in a little country parsonage at Rashult, in Smaland in southern Sweden, in May 1707. He was intended for the ministry, but the youth showed no aptitude for that profession, and early developed a passion for nature study which lasted during the whole of his life. Upon the family moving to Vaxjo, Dr. Rothman, the town physician, believing that the youngster would distinguish himself in medicine and the natural sciences, took him to his home and became his preceptor. In 1727 the pupil entered the University of Lund, and in the following year went to Uppsala, one of the oldest and most celebrated universities of Europe. In Uppsala Linnæus was in his element. He met there Celsius, Roberg and Rudbeck, the latter a professor of botany, who, recognising the abilities of Linnæus, employed him as an assistant. From Uppsala Linnæus undertook one of his most famous scientific expeditions; this was a one-man journey of 4,000 miles in Lapland, made on foot with little more than the equipment of a modern hiker. The description of this journey, with a catalogue of the collection of plants, animals and minerals, is a classic. The success of this tour led to invitations to other

European countries. In Holland he met the great physician Dr. Herman Boerhaave (1668-1738), styled "Hippocrates redivivus." Here he began the publication of his important works such as "Systema Naturæ," "Genera Plantarum" and "Fundamenta Botanica," works which revolutionised the science of botany. At the University of Harderwijk, Holland, he took his M.D. degree, his thesis being on the subject of intermittent fever. After visiting England and France in 1736, making friends with leading botanists, he returned to Sweden and became a resident physician in Stockholm. The practice became very lucrative, but he was not satisfied. "Once I had plants," he said, "and no money, but I was happy; now I have money but no plants and I am unhappy." At length, in 1741, he obtained the coveted post of professor of botany at Uppsala, where his gifts as a teacher made him famous. He built up a botanic garden and published revised editions of his books on the classification of plants. Linnæus was a rapid and accurate worker, and it is said that he was responsible for the publication of 180 works. He had a remarkable memory and could name and describe over 7,000 plants. It is calculated that during his lifetime he gave names to 10,000 plants and animals, most of which are in use at the present time.

## Linnæus and the Pharmacopæia

His wide knowledge of the use of medicinal plants is indicated in the frequent occurence in his catalogue of the specific name officinalis. Officina refers to a shop, appropriately the shop of the herbalist where samples were dispensed and sold. Linnæus had written a Materia Medica in 1749, and his services were requested in the preparation of a new Swedish Pharmacopæia. The existing one, dated 1686, had become obsolete. The necessity for a new one was evident in that the old one had many remedies taken from animals which physicians had discarded. The initiative for a new one was taken by

Linnæus, and although the work was approved by the Medical College in 1757, it was not published till 1775.

Foreign Exploration

Owing to his official duties 111 Uppsala Linnæus was unable again to undertake foreign travel, but he had so enthused his Scandinavian pupils that many of them visited lands overseas to collect objects of natural history. His beloved pupil, Petrus Lofling (1729-56), investigated the flora of Spain: "a cultivated European land remaining in a barbarous state as regards botany." Pehr Kahn made extensive tours in North America in 1747-1751, before the Revolution; Frederik Hasselquist visited Palestine, Syria and Asia Minor and obtained a valuable store cf animal, vegetable and mineral specimens. Unfortunately he died in Smyrna in 1752, but the collections were saved. Pehr Forskai. in 1761, joined a Danish expedition to the East, and, clothed as a



Linnaus in travelling dress

peasant to escape the marauding Bedouin, visited Egypt and Arabia. Felix Carl Peter Thunberg, in 1772-75, undertook a long journey to Japan, at that time closed to all nations but the Dutch, and returned by way of the Cape of Good Hope, Java and Ceylon. The Master in





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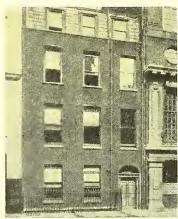
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Uppsala followed in spirit the travels of his pupils, and became "giddy" with excitement on beholding, on their return, so many novel things at one time. On the other hand, illnesses, pecuniary losses, troubles with natives, accidents and shipwrecks were experienced. These would have cooled the ardour of anybody but Linnæus for sending collectors abroad, but hardly a couple of years passed without finding one or more of his pupils exploring foreign countries. In his home, in his studies and pupils, honoured by high and low, both in his own country and abroad, Linnæus enjoyed the later years of his life. He had a stroke of apolexy in 1774, died in 1778, and was buried in the Cathedral in Uppsala. He was always true to the mottor of his youth, "Tantus amor Florum" (Thus great is the love of flowers.)

## The Linnean Society

The following notes are extracted from an admirable "History of the Linnean Society of London," compiled by Lieut.





Past and present homes of the Linnean Society
No. 12 Great Marlborough Street Burlington House, Piccadilly

Colonel A. T. Gage, C.I.E. Dr. Gage was for several years director of the botanical survey of the Government of India, and on his retirement was an official of the Society in London for five years. The Royal Society, according to its charter granted in 1663, was instituted for the purpose "of promoting Natural Knowledge." During the next hundred years the spread of interest in plants, animals and minerals made inevitable the formation of other societies to deal with their study. One of the earliest of these was "The Botanical Society," founded in London in 1721. Dillenius (1681-1747) of Oxford, and Martyn (1699-1768), of Cambridge, were the first promoters, and among the members were a few distinguished doctors. The Society did not survive beyond 1726, when its members gradually dispersed. The immediate forerunner of Linnean Society was the "Society for Promoting Natural History," which came into existence in the "Corner House by the Turnpike, Pimlico," in 1782, and one of the founders was the gardener of the Apothecaries' Garden at Chelsea. The meetings were held in the Black Bear, since it seems that all artistic, literary and scientific societies in this century met in taverns or coffee houses. The Society for Promoting Natural History, or "Fossil Society" as it was ironically called, after a struggling existence dissolved in 1822, and later the funds, books and collections were generously transferred to the Linnean Society.

The Linnean Society was founded in 1788 at a meeting held in the Marlborough Coffee House, Great Marlborough Street. The three projectors of the Society were Smith, Goodenough and Marsham, who had been members of the extinct society. James Edward Smith (1758-1828) was the son of a silk merchant of Norwich, who came to London to complete his medical studies. He showed a strong bent for natural history,

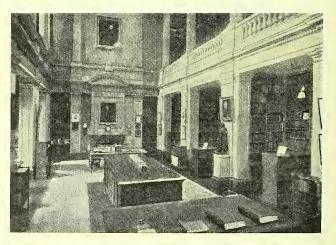
which soon brought him into touch with Sir Joseph Banks, the president of the Royal Society. Samuel Goodenough (1743-1827), afterwards Bishop of Carlisle, was a rector in Oxfordshire. Thomas Marsham, interested in insects and author of "Entomologia Britannica" (1802). Questions were raised in some quarters why the Society had adopted the name "Linnean." Smith emphatically defended the title in the following letter: "We have already conceived this name peculiarly proper for us, who have among us the very museum and library of Linnæus in the house where we meet. We consider his works as a good foundation to work upon, we are best able to determine the different objects he described, to correct his errors and to improve what he has left imperfect." A number of other Linnean societies came into being, notably the Linnean Society of Lyons and the Linnean Society of New South Wales.

New South Wales.

In 1796 Smith married and went to reside in his native Norwich. Before he left he sold by auction the minerals of the Linnean collection and, in spite of what he had written, took with him the botanical and zoological specimens and the library

and manuscripts of Linnæus. It was not until Smith's death, or thirty-three year's afterwards, that the Society again acquired the collections and resumed the peculiar property of its name. A museum was started early in the Society's career with further collections of insects, birds, fishes, shells and minerals. A library was also begun, largely with donations from Banks and Dryander, the latter for many years being honorary librarian. In the early days of the Society at the general meetings scientific papers were read in full. There were no printed abstracts as in later days and no lantern slides to illustrate the subjects. There was no refreshment before or after the meetings and no discussion of papers was allowed. As the meetings lasted only one hour a long paper would take more than one meeting to finish. To add to the dignity of the occasions, whoever occupied the chair either wore or had on the table in front of him a three-cornered hat. The record for the longest paper submitted to the Society is taken by Francis

Buchanan Hamilton. On his retirement from India he wrote an erudite "Commentary on the Hortus Malabaricus." The first instalment was given in May 1821 and the last in April 1852.



Library of the Linnean Society at Burlington House

### The Linnean and Allied Societies

The Linnean Society received its Charter in March 1802, and when it settled down to business, clubs and societies of cognate



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sciences began knocking at its door. The Horticultural Society, founded in 1804, used the Society's premises for its library and meetings for a few years; it was a great relief to the Linnean Society when the Horticultural Society found a habitation of its own. The Zoology Club of the Linnean Society was formed in 1823, and when in 1825 there appears a proposal for establishing a Zoological Society it was feared that this was a tendency of zoology ceasing to be under the wing of the

Linnean Society.

Among the vicissitudes of the Society was its frequent moving to find suitable accommodation. When Smith removed from Great Marlborough Street to Hammersmith the Society had to search for another house, and with the Westminster Library Society leased No. 10 Panton Square from September 1795. With its increasing membership, library and collections the Society engaged a paid secretary at twenty guineas a year. Owing to the growth of the museum the Society had again to seek new quarters, and in 1805 leased No. 9 Gerrard Street, Soho, a private residence, but previously it had been the Turk's Head tavern. In 1821 another change was made, and the Society moved into 32 Soho Square, the town house of Sir Joseph Banks, who died in 1820 and left it to his librarian, Robert Brown. In 1839 the Royal Botanic Society was established in Regent's Park, and in 1841 the Royal Gardens at Kew were made a public Botanic Garden, but the Linnean Society, with its distinguished presidents, royal patrons and increasing donations flourished and was again inquiring for fresh quarters. In 1854 the Government purchased Burlington House in Piccadilly from the Cavendish family for accommodating scientific societies. The Royal, Linnean and Chemical Societies moved into the building during 1856-57, but not before 1873 were the final alterations completed, and in the meantime the bulk

of the collections that had poured in until 1862 had to be sold or given away. In May 1873 the last anniversary meeting was held in the central block of Burlington House. The same year the Society entered into possession of its new home, which it now occupies. The number of Fellows on that occasion was 521, in the year 1936-37 it has reached 718. The roll of 4,000 Fellows includes almost all the notable botanists and zoologists of the British Empire during the last 150 years, whose names it would be superfluous to give here. In addition to these the roll contains the names of not a few who were or are distinguished as physicians, explorers, writers and statesmen.

### Fellows Connected with Pharmacy

The following Fellows of the Society connected with pharmacy have been known for their interest in botany and materia medica. Jacob Bell, the founder of the Pharmaceutical materia medica. Jacob Bell, the founder of the Pharmaceutical Society; Jonathan Pereira, lecturer on materia medica; Daniel Hanbury, editor of "Pharmacographia," was elected F.L.S. in 1855 and held the treasurership from 1873 to his death in 1875; Anthony Todd Thomson, Robert Bentley and Joseph Reynold Green were professors of botany; H. B. Brady, F.R.S., and N. H. Martin, of Newcastle-on-Tyne; Henry Deane, of Clapham; Edward Morell Holmes, curator of the Pharmaceutical Museum; George Clapidge Drives of Oxford. Pharmaceutical Museum; George Claridge Druce, of Oxford; James Walter White, of Bristol, these were two distinguished field botanists who wrote floras of their counties.

(The illustrations in this article are reproduced from A. T. Gage's "History of the Linnean Society of London," by courtesy of the Linnean Society.)

# Some Inscribed London Drug Jars

By AGNES L. WYATT, B.A.

APOTHECARIES' jars of the seven-teenth and early eighteenth centuries, made chiefly in the neighbourhood of Lambeth, have a singular attraction, not only because the names of the drugs and other medicaments described thereon record the existence of quaint remedies, most of which have long gone out of use, but also because the very jars themselves, with their somewhat rough-and-ready brushwork decoration, have an artlessness which is lacking in the more ornate, and perhaps more beautiful, majolica pharmacy pots produced in Italy and elsewhere at the same period and earlier. By the second half of the seventeenth century the larger jars had assumed the blue-and-white colouring which is considered characteristic of English delftware. The majority of existing examples are painted in various shades of cobalt blue on a white ground which often has a very faint pinkish tinge. The decoration consists of the label bearing the name of the substance which the vessel was destined to contain with various ornamental "motifs" around it. In the British Museum may be seen a jar dated 1652 with the inscription "C. Anthos" (i.e., Confection of Rosemary), a grotesque head appearing below the centre and in Fig. 1.—Photograph by courtesy of the London profile at each end of the label—the latter feature being present, in somewhat similar

form, on an inscribed caudle cup dated 1658 in the London Museum. It may be assumed, therefore, that the drug pot labelled "Mel. Ros." (Fig. 1) was made during the same period, for it also bears grotesque masks akin to those found



on the dated vessels. From the 1660's till about the end of the century the most typical form of ornament is made up of the label, distinctly lettered in blue, surmounted by the head of an angel whose outstretched wings enclose the inscription. In most cases the angel's features have more quaintness than beauty, e.g., S: DE: 5': Radicib (Fig. 2, left). Another design which occurs in the 1670's as a variaof conventional scroll-work around the inscription with tassels hanging below, e.g., O. Nardinum (Fig. 2, right).

# Styles Resembling the Dutch

About the beginning of the eighteenth century the designs change and tend to become more elaborate, the large angelheads with grimacing expressions on their faces and wig-like hair seeming to go "out of fashion." One of these new styles, which somewhat resembles contemporary Dutch ornament and may perhaps be the work of Dutchmen employed in this country, consists of the label surmounted by a basket of flowers or fruit with a bird on either side. Below the inscription is a small winged head with numerous swags and tassels on either side

of it, e.g., RAD: ERING: CAN: (Fig. 2, top centre). An alternative type of ornament seen on jars of this period is composed of a large conventional "cockle-shell" above the centre of the inscription with a seated angel-like figure on either side. Below the lettering are found the same kind of head, festoons and tassels as



# THE CHEMIST AND DRUGGIST Special June 25





in the previous example, e.g., THER: ANDROM: (Fig. 2, bottom centre). The glaze of this particular jar has a distinctly "blueish" tinge, and may be of Bristol manufacture. The names of the contents on these jars are, of course, given in a observation. given in abbreviated Latin. Among the single letters

fashion. The chevrette inscribed Mel. Ros. (Fig. 1) contained Rose Honey, probably made according to a formula similar to that for Mel Rosatum Commune (after Mesuë) given in the first edition (published in May 1618) of the London Pharmacopæia, which may be translated thus:—"Take two pounds of red rosebuds, and six pounds of best honey. Heat over a slow fire, according to art."

Like Correct when treating





Fig. 2.—Photographs by courtesy of the London Museum.

occurring most frequently on labels are:—"U" or "V," signifying "unguentum" or ointment, "O" for "oleum" or oil, "S" for "syrupus" or syrup, "P" "pulvis" or powder, and "E" meaning "electuarium" or electuary, this being the name applied to such remedies as were made into a syrup-like form by the addition of honey. The vessels are sometimes dated, the numerals appearing not infrequently directly under the label, or elsewhere in the decorative design (Fig. 2. right). Initial letters, other than those tive design (Fig. 2, right). Initial letters, other than those connected with the contents of the pot, are also found below the label itself and sometimes interspersed amongst the decoration around it—they may be the initials of the owner of the jar.

Forgotten Preparations

Many, though not all, of the preparations named on these jars are now forgotten except by the historian of medicine or pharmacy. Although the art of healing was beginning to be studied with scientific method during this period by such men as William Harvey (1578-1657) and Thomas Sydenham (1624-1689), the atmosphere of mystery which had surrounded the coordinate will lineared, and lars were made for preparait for centuries still lingered, and jars were made for preparations containing strange ingredients. Such, for example, was the "Theriaca of Andromachus" contained in the small jar labelled "Ther. Androma" (Fig 2, bottom centre). This famous preparation is believed to have taken its name from that Andromachus who was physician to the Emperor Nero. It was supposed to be an antidote to poisons, especially the the was supposed to be an antidote to poisons, especially the venomous bites of wild beasts, and amongst the many ingredients Theriaca contained was the flesh of vipers. It was also known as "Venice Treacle," since quantities of it were apparently made and exported from that city. John Evelyn mentions it in his Diary (March 1646) thus:—"Having pack'd up my purchases of books, pictures, castes, treacle, etc. (the making and extraordinary ceremonic whereof I had been curious making and extraordinary ceremonie whereof I had ben curious to observe, for 'tis extremely pompous and worth seeing), I departed from Venice. . . . " The form of jar with spout and handle, termed a "chevrette" (e.g., Fig. 1) was intended to contain viscous substances such as syrups and oils, the widemouthed shapes being used for solids and powders. The contents of both types were protected from dust by means of parchament or bladder tied. parchment or bladder tied over the openings in jam-jar John Gerard, when treating in his "Herball" (1597) of the "Vertues" of the "divel's bit scabious," states that it "clenseth away slimie flegme that sticketh in the jaws . . and it quickly taketh away the swellings in those parts, if the decoction thereof bee often held in the mouth and gargarized, especially if a little quantitie of *Mel* Rosarum, or honie of Roses be put into it."

An interesting recipe for S.DE: 5: RADICIB, or Syrup of the Five Roots, which forms the label on the jar dated 1678 (Fig. 2, left) appears in the Pharmacopæia Londinensis of 1677, and indicates that the five roots were those of brown fempel. were those of broom, fennel, wild celery (apium), parsley (petroselinum) and asparagus. These were boiled in m Museum. spring water and a syrup made by the addition of sugar and vinegar. The preparation was apparently intended to be used as a purgative.

# Medicinal Confectionery

Medicine in the form of a sweetmeat was evidently favoured several centuries ago, as instanced by the large jar labelled RAD: ERING: CAN: (Fig. 2, top centre). This contained Candied Eryngo or Sea Holly Root. "Eringoes" are mentioned by Falstaff in the "Merry Wives of Windsor" (Act V, Scene 5), and Gerard in his "Herball" tells how "Eryngian Candidates and the sea cide when the label and the label are labelled RAD: Eringoes" are mentioned by Falstaff in the "Merry Wives of Windsor" (Act V, Scene 5), and Gerard in his "Herball" tells how "Eryngian and the labelled RAD: "Eringoes" are mentioned by Falstaff in the "Merry Wives of Windsor" (Act V, Scene 5), and Gerard in his "Herball" tells how "Eryngian and the labelled RAD: "Eringoes" are mentioned by Falstaff in the "Merry Wives of Windsor" (Act V, Scene 5), and Gerard in his "Herball" tells how "Eryngian and the labelled RAD: "Eringoes" are mentioned by Falstaff in the "Merry Wives of Windsor" (Act V, Scene 5), and Gerard in his "Herball" tells how "Eryngian and the labelled RAD: "Eryn marinum growes by the sea side upon the baich and stony ground." "The roots," he says, "condited or preserved with sugar... are exceeding good to be given to old and aged people that are consumed and withered with age, and which want natural moisture: they are also good for other sorts of people, nourishing and restoring the aged and amending the defects of nature in the younger." Gerard then describes very carefully "the manner to condite Eringos." John Evelyn, also, was acquainted with the root, for he writes in his Diary (July 7, 1656), when visiting Colchester:—"It is famous for oysters." and eringo-root, growing here about and candied for sale.

# A Toothache Remedy

The jar inscribed O. NARDINUM, bearing the initials I.F. and the date 1677 (Fig. 2, right) was intended to contain Oil of Nard or Spikenard. A formula with that title is given in the London Pharmacopæia of contemporary date, and in Wootton's "Chronicles of Pharmacy," it is stated that "Galen recommended spiders' eggs mixed with oil of nard for toothache." Pots of Lambeth delftware are still to be found, emptied of their drugs bought in Bucklersbury, in the cases of museums and collectors, but are no longer to be seen on the shelves of the modern dispensary, their places having been taken by the far less picturesque products of the glass-bottle

All the specimens mentioned are exhibited in the London

Museum unless otherwise stated.



# Pocket-lens Photography

By PROFESSOR J. SMALL, D.Sc., Ph.C.

SINCE the publication of my book "Pocket-lens Plant Lore," I have been investigating the possibilities of making photographic records, instead of line drawings, of the many interesting, but often evanescent, objects which can be seen under a good pocket-lens of the Coddington type,

Professor Small

with magnification of at least ten diameters. It is, of course, possible to get photographs slightly larger than natural size by using either a triple-extension camera or supplementary lenses on one of the better miniature cameras. It is likewise possible to photograph objects under the microscope, with high- or low-power objectives, but in this case the field of view is small; it is impossible to photograph the *whole* of a clove or even a threepenny piece (of the old-fashioned kind) under the microscope. One can get enlarged views of parts of such objects but not a view of the object as a whole. For the higher powers an eye-piece is used with an objective that itself has a small field,

while the lower powers, designed for use without an eyepiece, the microscope tube cuts off all except the central part of the cone. A leading firm has recently put on the market a series of wide fittings, which can be used with a microscope stand and vertical photomicrographic camera similar to the



THREEPENNY PIECE, date 1915, photographed by the "pocket-lens" method

usual laboratory type; these are used in conjunction with low-power lenses of 1 to 12 cm. focus. Such an apparatus is expensive and not suitable for use in the field or away from a laboratory. By the time a descriptive catalogue of this

apparatus had reached me and a representative of the makers had called, many results had been obtained with my new inexpensive "pocket-lens" camera.

## Apparatus

My requirements included portability (rendering the apparatus suitable for use in the laboratory, at home, or in the field); and flexibility of magnification—between the limits of the head of a common pin or a henbane seed (about one-fifteenth of an inch to be brought up to about five inches in

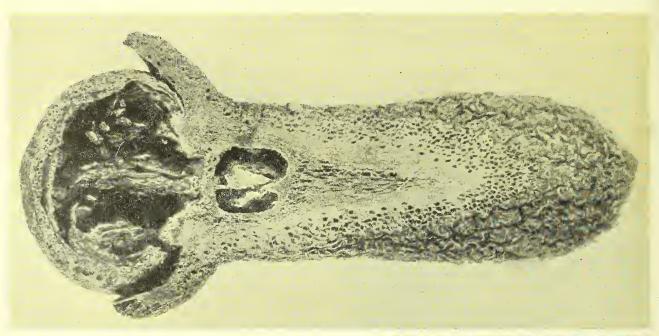


Coriander.—Being nearly spherical this is not sharply in focus all over the rounded surface, but shows the wavy primary and straight secondary ridges, apical stylopod, and scars left by sepals and petals when they fell off.

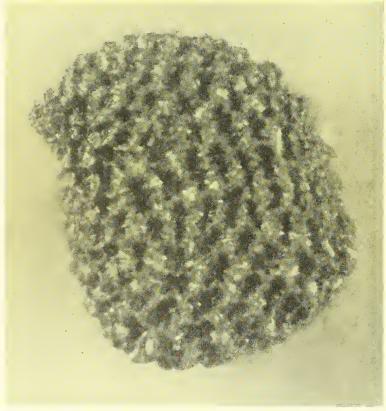
diameter) and a double-size postage stamp (to be brought up to ten by eight inches) corresponding more or less with the range of the neglected pocket-lens (i.e., between the microscope and the usual camera lens). The main problems were (a) illumination of opaque bodies for photography by reflected light, and (b) depth of focus, which is slight with normal microscope objectives. Having demonstrated to my own satisfaction that the required magnification could be obtained with a Microphot lens in front of a double-extension camera, followed by enlargement from the negative in printing, I persuaded Watson and Sons, Ltd., London, to make to my order a suitably rigid folding camera-body for use with their own or



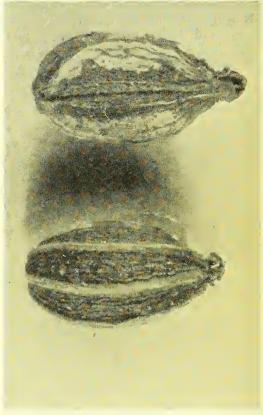




CLOVE FLOWER BUD cut open to show sepals, imbricate petals, incurving numerous stamens, straight stiff style, two-celled ovary with seeds, and numerous oil cavities. These can be seen in the petals and sepals as well as in the hypanthium.



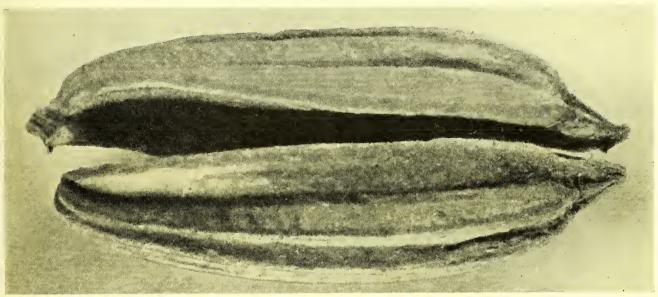
Henbane seed, showing reticulate ridging; ridges about  $\frac{1}{10}$  mm. wide and very wavy.



CONIUM, showing in one case the flat commissural surface and two ridges and in the other the rounded surface with three of the five primary costae or ridges; in both cases the stylopod is conspicuous. The presence of several minor ridges on each intercostal surface is clearly demonstrated, although this is not a "book" character.



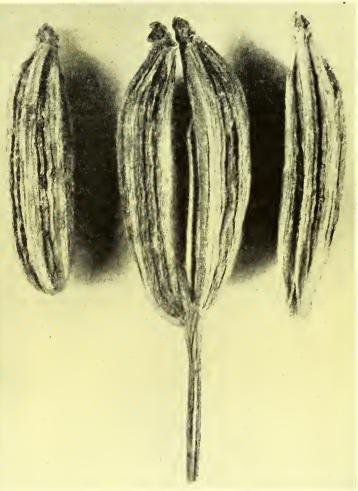




Fennel, showing flat glabrous intercostal surfaces, primary ridges, and stylopod.



DILL, showing wider winged side ridges and the three other primary ridges in one example, with raised intercostal surfaces seen, on this scale, to be somewhat rough; also stylopod and remains of calyx; in the other example the commissural surface is shown with wings rather indistinct and the carpophore as a pale ridge sinking to the level of the general surface in the lower part of the fruit; at the top of this mericarp there is a silhouette of the stylopod and the sepals.



Caraway, showing numerous minor folds of intercostal surface between main ridges, also carpophore between the mericarps, and the stylopod.



other makes of low-power photomicrographic lenses. The dither of the lens panel or camera front of a double-extension camera is naturally fatal to success at magnifications of the required degree. With this "pocket-lens camera," as I call it (the camera body used with lenses of I in.,  $1\frac{1}{2}$  in., 2 in. and 3 in. focus), my search for a suitable piece of apparatus has now

ocus), my search for a suitable piece of apparatus has now threaded screw.

Cumin, showing conspicuous primary ridges and flatter secondary ridges with their trichomes; also stylopod and sepals as mounds around these.

been successful. The outfit is essentially a small, folding copying camera, with back extension, taking  $2\frac{1}{2}$  in. by  $3\frac{1}{2}$  in. plates or film-pack either vertically or horizontally, used with an adapter for the low-power photomicrographic lenses of the Microphot, MicroSummar, or Microtar types. It has not the eight-foot extension recently described in a photographic journal, but it does fold up to pack in a small canvas case which is not much bigger than the one I use for my Baby Sibyl and its accompanying gadgets and film packs. Portability is obtained by means of a folding base; flexibility of magnification by the back extension—which is variable up to about teninches—coupled with the use of various lenses; depth of focus by an iris diaphragm within the lens, used open to get sharp focus and stopped down to f/II or f/23 to get depth of focus. Illumination involves several methods. The shutter is quite an ordinary one, but time exposures are always necessary (one to four seconds usually).

#### Illumination

Illumination in laboratory or home consists of two Photo-flood bulbs, used at about six inches distance, with shell-pattern shades fitting rather closer than the usual reflectors. In the field, or on caravan holidays, direct sunlight is used. This tends to give heavy shadows, but they can be neutralised or reversed by manipulation of a small concave mirror mounted on a ball and socket swivel stand. Direct sunlight, combined with mirror intensification, is as good as two Photo-floods. With neither electric current nor direct sunlight available, it is still possible to get photographs of flattish objects which do not involve much stopping down, by using two small pocket lamps that have lens-fronted bulbs. These give a concentrated spotlight at the short distance of half an inch, and are mounted, adjustable to this distance from the object, in flexible metal holders. The object to be photographed is mounted by means of Seccotine, or gummed paper, on a small piece of white or black card, which is then fixed firmly in a lining (bow) pen attached to a strong frame. The object is placed in front of the lens at a distance of one to three inches, according to the focus of the lens. The focal length is not the ordinary internal measure-

ment for a camera lens but an external length of focus, like that of a pocket lens. Sharp focus is obtained by moving either the camera or the object, and a screw adjustment for the penholder has been found convenient. The clip for the pen is fixed to a sliding brass wedge moved by turning a slow threaded screw. As the general aim is to fill the space

available on the negative, the one-inch lens is used only for very small objects (one-fifteenth to one-quarter inch diameter); the two-inch lens can be used up to about three-quarters of an inch; and the three-inch lens up to nearly two inches diameter. Students of crude drugs commonly used as a pocket lens for the details, but these are so unlike the usual line drawings that between the drawing and the actual appearance of the object there is a gap which can be filled only by a retentive visual memory of what had been seen under the lens. With the pre-sent development of the "pocket-lens" camera technique this gap can now be filled by large-scale photographs giving all the details visible under a pocket-lens. When the detail actually obtained in the illustration from the dark brown cut and uncut surfaces of a clove is considered, the photography of pocket-lens details of any cut or uncut surface of any drug is seen to be clearly possible. The modern Photo-flood illumination, combined with the "pocket-lens" camera, makes it practicable. The same technique can be applied in photographing any small still objects, such as coins, stamps, and parts of flowers or lower plants.

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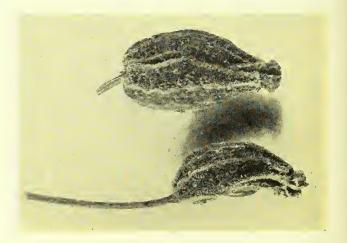
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## Enlarging

The final magnification is done in an ordinary enlarger, an enlargement of the negative image to the extent of five or six diameters giving quite a sharp print. If the negative carries an image which is already enlarged by ten diameters, the printing enlargement thus brings it up to 50 or 60 diameters. In practice an eight-inch print is easily



Aniseed, showing wavy primary ridges and numerous short trichomes on intercostal surfaces; also stylopod and more or less persistent stalk (together giving the appearance of two of the "three blind mice," one before and the other after the attentions of the farmer's wife—the student should remember that conium, not aniseed, has a "mousy" odour).

obtained from the two- to three-inch image on the negative, but if required a ten- or even twenty-inch print can be obtained from a really sharp negative. With every degree of enlargement beyond five or six diameters the grain of the negative becomes a more obvious feature of the print.



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# Algerian Olive Cultivation

ESPITE its name, the olive, Olea Europea, is not of European origin. It is an immigrant. Possibly, even, its introduction into North Africa dates back as far as its arrival in Italy, for it was carried by the Phœnicians to their colony Carthaginia. The varieties cultivated to-day derive from a plant which grew wild in Asia Minor. The trees live to a great age—many trees still flourishing to-day must be well over a thousand years old. This may be the reason that the olive was venerated as a holy tree by the Semitic races, for mention of the olive is to be found in the book of Genesis and the scriptural account of Noah's dove and the olive branch has its counterpart in many languages. De Candolle asserts that olives were cultivated in ancient Egypt over 4,000 years ago and certainly olive branches have been found in mummies' coffins during excavations in that country.

found in mummies' coffins during excavations in that country. In North Africa, in the part that is now called Tunis, the olive was made a principal source of wealth by the Carthaginians, but it was under Roman rule that culture of the olive tree underwent its greatest development. In proof of this innumerable oil presses of Roman origin have been discovered on the plains, on the high plateaux, and even on the fringe of the Sahara desert. For the Romans, probably by irrigation, were able to cultivate much further South than is possible to-day. Unfortunately the peoples who succeeded the Romans were nomads and shepherds and a flourishing industry fell into ruin. Little by little the immense areas of cultivation were allowed to run wild and lands once fertile lay barren for centuries. For this reason olive cultivation in North Africa cannot boast a continuous development as in Italy and Greece. Not until the French colonists settled was the cultivation again seriously taken up. When the French showed interest the natives followed suit and by 1854 over 23,000 hectares (about 57,000 acres) were under production.

#### Conditions of Growth

The olive tree does not require a particularly fertile soil or need a great deal of attention. Nevertheless, certain conditions of warmth and watering are necessary and frost is a great enemy. The maximum altitude for satisfactory development is 3,000 feet and, if planted too near the sea, or if the atmosphere is too moist, the tree often becomes infested with a cryptogamic growth Capnodium olæphytum, which gives the tree a sooty appearance all over. Another source of trouble is the olive fly, Dacus olea, whose larvæ live in the fruit itself. Propagation is either from branches growing from roots and then detached from the parent tree or by grafting wild olive bushes. This latter method is the one generally followed in Algeria; either by clearing the ground around or by transplanting. Except for experimental purposes, the olive tree is never reared from seed, as it grows too slowly. The principal North African varieties are: Chemlal, which yields an oil of fine quality; Adjeraz, also common, and including an oil with a "fruity" odour; Aberkam, a variety bearing large fruits: Seddouk limi, the oil from which is particularly suitable and exclusively used for preserving sardines and other fish; and Bouchouck, Sigoise, Tefah, three varieties grown for pickling. In 1925 there were 8,620,930 cultivated olive trees, of which 1,743,911 had been planted. The remainder were grafted wild trees. Until 1935, the number of cultivated trees was fairly steady around 9,500,000, the maximum being 9,801,000 in 1933; but it is calculated that there are more than five million wild trees yet remaining that could be grafted.

The gathering of the olives commences in November and continues until March. Those gathered before complete maturity yield an oil of excellent quality, sweet, and of a greenish colour. The very black olives yield a more abundant, yellower oil of stronger yet still delicate odour. Olives gathered by hand give a better oil than that obtained from fruits knocked down by means of poles. The latter practice, by breaking the young shoots, also decreases the yield the following year. The gathered olives are taken to the mill, where, in the most up-to-date factories, they are stoned by machinery and

crushed. The pulp is placed in flat baskets made of strong vegetable fibre and subjected to a moderate pressure. The oil so obtained is known as the huile vièrge, other descriptions being surfine, mère-goutte, and première expression. This oil has only a slight colour and a sweet and agreeable taste. It is the sort used by watchmakers and ought to be the kind used by all who require a superfine oil. It is, in fact, the oil which established the well deserved reputation of olive oils from the South of France. Ordinary-grade oil, or that of the second expression, is obtained by pouring boiling water over the baskets and increasing the pressure, the oil produced being still of excellent quality. The mixture of oil and water is allowed to separate, and the oil poured off and filtered. If

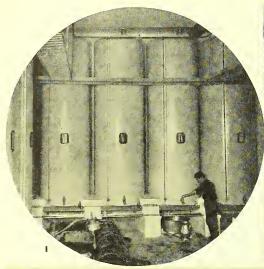


Roman city of Djemila, once the centre of a flourishing olive-growing industry

necessary the product is bleached by sun and air or by the addition of citric and tartaric acids. Prior to 1933 the oil from Algeria was frequently of a quality not highly esteemed. The reason was that, instead of the oil being carried immediately to the press, the Spanish custom of stacking the fruit for several days was followed. By this process the fruit commences to ferment and gives an oil of a pronounced "fruity" odour, but the yield is slightly increased. From the natives' point of view the strong odour is of no importance, and for personal consumption they even seem to prefer it. This practice was difficult to eradicate, but the Government, by persistent efforts, and by offering premiums for oil of first quality, have now made Algerian oils justly appreciated on the world markets. In fact the premium of 15 francs per cwt. on first-quality oil has had a rapid effect. In 1933 one-tenth only of the total production was of first quality. To-day seven-tenths of the production conforms to the severe specifications of the Government. By further increasing the pressure on the pulp, and by further use of boiling water, more oil is expressed. A small quantity is also obtained from the crushed stones. These oils, thick and greenish-coloured, and containing a high proportion of acid. are used by the soap and dyeing industries. Finally the whole remaining masses are allowed to separate in tanks known as "hells," a name which provides a clue to their smell. Very slowly the last traces of oil come to the surface. The product, called huile d'enfer, is used as wagon grease.







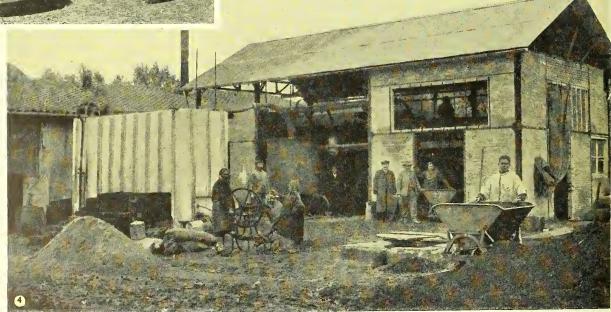




# NORTH AFRICAN OLIVE OIL INDUSTRY

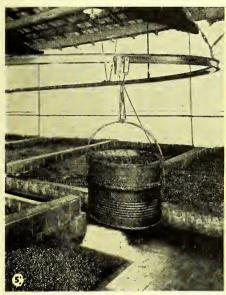
- 1. Modern storage tanks for the refined oil.
- 2. Ancient Roman oil mill recently un-
- 3. Primitive native oil press of to-day.

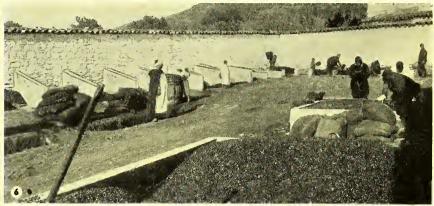
  The first crushing takes place in the donkey-driven mill at right. The whole apparatus at left is of wood.
- 4. Exterior of a modern mill.



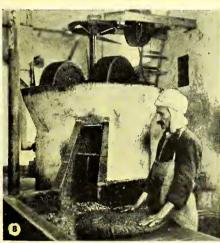


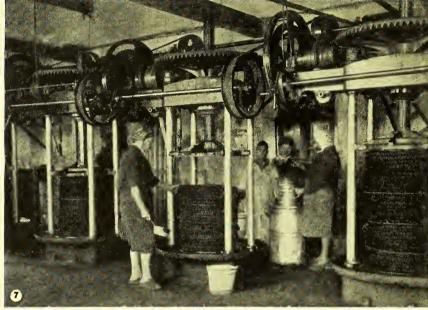






- Olives awaiting expression.
   Native system of storing olives before expression.
   Pressing the pulped fruit in "cabas" (flat baskets).
   Grinding olive stones.
- 9. Harvesting the olives in a mature grove.











## TUNIS NEROLI



Well sunk to provide water which is pumped to reservoirs



Preparing the rough ground for cultivation



Arrival of a camel-load of flowers at the distillery



Cactus plants form hedges between the plantations



Modern building in which the stills are housed



Transport from field to factory is by camel



Picking over the flowers at the day's end





# Tunis Neroli Industry

HE production of neroli in Tunis on a commercial scale, with its subsidiary product, orange flower water, commenced only a few years ago, is already proving to be a successful venture. Limited quantities of oil of petitigrain and dried orange peel are also being produced. A barren tract of sandy waste ground, totalling about 70 acres, has gradually been transformed into gardens planted with some thousands of bitter orange trees. The factory, distillery and stores are situated in Nabeul on the central North African coast, about 42 miles from Tunis, and the three gardens are located in the surrounding territory. The enterprise is under British control and direction, with the title of Société Anonyme Tunisienne d'Exploitations Agricoles. For some years past there have been two small foreign-owned distilleries operating in this locality. These concerns have no orange tree gardens of their own, and obtain their supplies of flowers from a number of small native growers.

#### The Gardens

There are three gardens, two adjoining the coast road and one about ten miles inland, all planted with bitter orange trees. The first garden, laid down in 1907, has an area of nine and a half acres and contains about 1,900 trees; the second was planted with 2,605 young trees in 1929 and covers fifteen acres, while the third garden is over forty acres in extent, and so far over 2,600 trees have been set out. The full capacity of the plantations is over 10,000 trees; at the present time the

The trees bloom in April-May, and native labour is employed in picking the flowers, which are collected in sacks and taken direct to the distillery. Here the flowers are spread out on floors and picked over to remove leaves, etc., prior to being loaded into the stills. Distillation has to take place as soon as possible after picking, and is usually carried out well within twenty-four hours of the flowers being gathered. Besides the crop of flowers brought in from the company's gardens, very considerable quantities are purchased from natives who bring them in from their own small plantations. Donkeys and camels are the usual form of transport. During the season which has just finished 132,225 kilog. of flowers were distilled, with an output of neroli amounting to about 150 kilos. The yield of flowers was exceptionally good this season, and it is anticipated that production of neroli will increase during the next few years. Orange flower water, a byproduct of neroli oil, is produced in large quantities; the annual output averages about 106,000 litres.

## The Factory

The factory is of modern design, equipped with up-to-date machinery. There is a battery of three stills, two with a capacity of 1,100 kilog. of flowers and one holding 600 kilog. The larger stills are loaded three times a day and the smaller one four times in each twenty-four hours. During the picking season the stills are worked to capacity with up to twelve tons



Native workers gathering flowers in a mature garden

number under cultivation is about 7,200. Following the work of levelling and clearing the ground, which was very uneven and covered with scrub and cactus, a number of wells were sunk in each garden. Water is pumped by electric motors from the wells to reservoirs, and irrigation is carried out by a system of long culverts with direct feeds to the trees, which are all trenched. The trees planted in recent years were grown from seed and grafted following planting out. In the original garden they are planted four metres apart; in the second five metres and in the new large garden there is a space of six metres square between the trees. Planting takes place when the seedlings are two to three years old, and they reach maturity at seven to eight years, with a height of 12 to 15 feet. The boundaries to the plantations are formed of banks of sand about four feet high, thickly planted with cactus, which provide satisfactory protection against raids on the flowers by natives. Cypress trees, which grow very quickly, are planted round the gardens to give protection from the wind.

of flowers dealt with in one day. The spent flowers, after being mixed with chemical fertiliser, are used as dressing for the plantations.

The production of oil of petitgrain from the leaves of bitter orange trees depends largely on the quantity of foliage brought in to the distillery by the small native growers. At the present time the annual output of oil amounts to about 200 kilos; a bigger production is anticipated as the plantations increase in acreage. Another secondary product of the industry is dried orange peel. This season the output of dried orange peel amounted to between five and six tons. At the moment no use is being made of the orange pulp, but experiments are being carried out with a view to producing a marketable concentrate. All the neroli produced finds a ready sale in England, and it is reported that the quality is equal to that of the Grasse oil. The usual packing is aluminium tins, containing about one kilog. of oil. The orange flower water is packed in 120-gallon drums, and substantial quantities are sold on the English market.



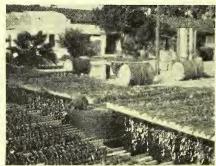




Channels for irrigating the plantations



Gathering the flowers and leaves



Orange peel set out for drying



A worker among the trees in a plantation



TUNIS NEROLI



Drawing off essential oil from a separator

Type of native still: capacity, 4 kilog. of flowers



Gathering flowers from the higher branches



Reservoir for irrigation of newly planted field





# Grocers, Apothecaries and Druggists

In the long history of the City of London the Guilds have played and continue to play an important part. That they should have lasted—withstanding all sorts of criticism, and internal troubles—is not only a peculiarly striking fact, but one which surely deserves examination. The Guilds or Companies of the City of London are an integral part of it. Without them the Corporation of London would be a shadow, little different from the modern municipal Corporations which have only a century of history behind them. But while the Guilds are in a sense a part of the Corporation, they are, within their



Grocers' Hall, London, XVIIIth Century (before rebuilding)

own homes, free and independent so that the central body which sits at the Guildhall scarcely interferes. The Court of Aldermen has certain powers of regulation. No member can, for instance, wear the Livery without being free of the City, and the freedom is granted by the Lord Mayor and Aldermen sitting in the ancient Court of Aldermen. Most of the Guilds, too, have a limited number of Liverymen, and that limit is fixed by the Aldermen, who alone have the right of granting a Livery to a Guild. This is a most jealously guarded privilege and is seldom exercised. Before the recent grant of a Livery to the Master Mariners no Livery had been created for a century, and in that case the Company had been in existence as a fraternity for hundreds of years. The Livery makes the Guild a formal part of the City organisation, for the Liverymen gather at Michaelmas to select two of their number one of whom is then chosen by the Aldermen to be Lord Mayor, and at Midsummer to elect Sheriffs both of whom must be citizens, which means that they are free of one or other of the fraternities.

In a London which has altered so rapidly in make-up and extent during the last hundred years it is perhaps not surprising that there should be much misconception with regard to the Guilds and indeed with regard to the City and its organisation. The coming of the railway train brought large numbers of strangers to the ancient capital of the City, while growing trade, due also to invention, caused the pressure which has resulted in the departure of residents and the setting aside of the one square mile as what may, roughly, be termed the Counting House of the Nation. Most Guilds were originally religious fraternities which tended to get into their membership men of the same trade, due to the fact that in ancient times, as now, people of the same calling settled in the same district. Gradually, with the recession of religion as the governing factor in man's life and the allabsorbing nature of business, the Guilds came to be known by a trade as well as a religious name. At no time were the Guilds wholly composed of men of the same trade, for patrimony is one of the oldest privileges of the citizens. A man

may follow his father if born free. Thus as long ago as the fifteenth century we find men described as "grocer" or "merchant taylor" whose business in life had nothing whatever to do with those callings. Companies there are which by careful selection manage to remain predominantly associated with a particular calling. The Stationers, until the amalgamation with the Newspaper-makers, would admit no one who was not associated in some way with the making of a book—except, curiously enough, the author. But they could not and did not refuse admission by patrimony. The Gunmakers and the Scriveners have a similar practice, while the Apothecaries are predominantly medical. Some of the leading surgeons of the day are liverymen of the Barber-Surgeons Company, the Guild from which sprang the Royal College of Surgeons of England.

#### Grocers were Wholesalers

The Grocers' Company is first heard of in 1373, but the Guild is much older. It seems to have had its origin in the Guild of Pepperers, of Soper Lane, which was not new in 1180, for then it is recorded that the Pepperers of Soper Lane were allied with the Spicers of Cheap. In 1345 came the Fraternity of St. Anthony, for the purpose of promoting greater love and unity and to maintain one another. The ordinances of this fraternity disclose social henevalent and religious objects

fraternity disclose social, benevolent and religious objects. "To the honour of God," runs the record, "the Virgin Mary, St. Anthony and all the saints, the ninth day of May 1345 a fraternity was founded of the Company of Pepperers of Soper Lane for love and unity to maintain and keep themselves together of which Fraternity are sundry beginners, founders and donors to preserve the said Fraternity." Twenty-two names of the founders complete the document, which is still preserved at Grocers' Hall. In 1373 comes the first reference to the Fraternity as Grocers. It seems to have had little reference to our modern conception of a grocer. Grocers were in old days men who dealt wholesale—en gros—in contradistinction to the shopkeeper or retailer. The position of the Guild in the government of the City is another indication of the importance of the members or liverymen. The famous Nicholas Brembre was a member and was first elected Mayor in 1377. The chief supporter of Richard II in the City, he was the king's financial agent in 1381. At this period there was a feud between the victualling and the non-victualling Guilds. There was a conflict in Cheapside between the Goldsmiths and the Grocers. Brembre was in the end tried, condemned to death and executed; but it is interesting to note that those who petitioned for his punishment were the Mercers, the Cordwainers and eight others all opposed to the victualling trades. John of Northampton, who was Mayor for two years immediately preceding Brembre, was the champion of cheap food for the people.

## A Food and Drugs Inspector

In 1394 a member of the Guild was appointed "garbeller" of the City, his duty being the cleansing of spices and other "sotill wares." Later the custody and management of the king's beam was entrusted to the Guild, and "garbelling" for the whole country outside the City became one of their duties. In 1541 they are found ordering "bags and remnants of certain evil and naughty pepper to be conveyed overseas to be sold, and the dust or evil pepper surnamed ginger to be burned." The variety of goods garbelled was very wide, and included not only spices but oils, drugs, medicines, ointments, plaisters, resin, rhubarb, syrups, anise, wormseed, ammonia, alum, sugar and turpentine. It will be seen that this list contains the names of several drugs. This connexion of the Grocers with the trade in drugs is of great antiquity. The Pepperers of Soper Lane (now Queen Street), Cheapside, opened up and maintained in England a market for the spices and drugs of the East, and the luxurious silks, wines and fruits of Italy. Some of the most successful members of the trade in those distant days were Italians or of Italian origin—so mixed



## THE CHEMIST AND DRUGGIST Special June 25



are the English! Thus says the late Mr. J. C. Thornley: Andrew Bukerel, Citizen and Pepperer, who was Mayor of London from 1231 to 1236, belonged to the Bucherelli family, and another eminent Pepperer, John de Gisors, Mayor in 1254-6, sprang from the Gisori. Even to this day there are "Italian warehousemen," although they now deal in a class of goods very different from those to which the original name applied. On its introduction into England tobacco was added to the list of things garbelled by the Company, and the grocers in the old extended sense were the first tobacconists.

## Apothecary was a Grocer

From all this it will not seem strange that the apothecary was, in ancient times, a grocer, and that many herbalists and sellers of drugs were members of that fraternity. Out of the Barbers' Company came the surgeons and the Royal College of Surgeons, and out of the Grocers' Company came the Society of Apothecaries. According to Barrett, the first mention of an apothecary in England occurs in a grant of a pension of 6d. a day to Coursus de Gangeland for attending Edward III in 1345. The said Gangeland is described as "an apothecary of London," and neither the Pepperers nor the Grocers are mentioned. Until the early seventeenth century it seems pretty clear, however, that apothecaries were grocers; for the latter guild possessed the right, confirmed by Charter as late as 1606, of selling drugs and of controlling druggists.

## Apothecaries Granted a Charter

This charter is described by Barrett as the first incorporation of the apothecaries and united them with the grocers. So, according to him, they remained united until December 6, 1617, when a new charter was granted and the society became a separate guild or fraternity. Later, however, he terms the 1617 charter the first charter. The general opinion, however, is that the apothecaries may trace a long history through the grocers, and broke off when conditions became such that they had need of independence to develop upon their own lines.

Staircase in the present Grocers' Hall

Philip Norman says that "dissatisfied with their subordinate position and helped by the King's apothecary Gideon Delaune,

they obtained a charter from James I. This recites the wish of the apothecaries to be dissociated from the grocers on the ground "That ignorance and rashness of presumptuous and inexpert men may be restrained whereupon many discommodities, inconveniences and perils do arise to the rude and incredu-lous people." Thornley neatly describes the society as a livery guild with an added professional status. Perhaps, naturally, the grocers, and even some of the apothecary members of the old fraternity, objected strongly to the split, and persuaded the Court of Aldermen not to enrol the charter. This, however, could not be, and in the end, after Royal intervention, it was duly placed upon the archives at Guildhall, but not until the King had pointed out the need of the new and separate body "to avoid abuses of unskilful persons." As soon as the charter took effect the Court of Assistants set to work to discover deficient and bad medicine and to purify the craft. Severe fines were imposed upon defaulters. And the powers the Guild had secured were fairly comprehensive. The new society could restrain the Grocers, or any other City company, from keeping or exercising the "art, faculty or mistery" of an apothecary within the City of London or a radius of seven miles. No one was to do so unless apprenticed to an apothecary for seven years at least, and, at the end of that term, such was to be approved by the Master and Wardens before being allowed to keep a shop or dispense medicines. Further, the charter gave the right of search, to test drugs, to burn unwholesome drugs in front of the offender's door, and to summon him before a magistrate. It also gave permission to the society to make, buy and sell drugs. But the most important action of the Court as a result of the Charter was to institute examination and, in course of time, to forbid the unqualified to practise. It is not surprising that the energetic enforcement of such powers should have led to trouble. The physicians grew jealous. They looked upon the apothecary as inferior and as poachers on their rightful preserves. This grew into open controversy, in which the physicians took the line that the apothecaries had no right to prescribe as well as to dispense medicine. Incensed at what they regarded as "the intrusion of the druggists," the College of Physicians

advertised that its fellows and licentiates would give free advice to the poor, and that the College had established a dispensary of its own for the sale of medicines at their intrinsic values. The wits of the day were against the apothecaries,

and Dryden wrote:—

"The Apothecary tribe is wholly blind

From files a random recipe they take.

And many deaths from one prescription make.

Garth, generous as his Muse, prescribes and gives;

The shopman sells, and by destruction lives.

Garth, physician as well as poet, wrote "The Dispensary," a poem in which he

"Nigh where Fleet Ditch descends in sable streams,

To wash his sooty Naiads in the Thames.

There stands a structure on a rising hill,

Where tyros take their freedom out to kill."

But the dispute was not settled in verse. The Physicians, relying upon their charter, brought an action against an apothecary named Rose for attending a butcher. The fact of attendance was proved in Court, and the jury somewhat reluctantly gave a verdict for the plaintiffs; but the House of Lords reversed

the decision in 1703, and thereafter it became the law of the land that Apothecaries might advise as well as administer.



#### THE CHEMIST AND DRUGGIST June 25 Special Issue 1938



## Apothecaries Act

On the limited foundation of its Charter was built the first Act of Parliament obtained by the Society, the well-known



Arms of the Apothecaries' Society, granted 1617. The motto is usually translated "I am called an assistant throughout the world."

Apothecaries Act of 1815, which, after reciting in its pre-amble the examining power that the Society already possessed, gave to it, in lieu thereof, enlarged and extended powers which en-abled it to examine in and grant licences to practise medicine throughout England and Wales. The result of the working of this Act by the Society is best illustrated by the fact that many thou-sands of persons licence to practise

have by means of it obtained a licence to practise medicine. The Apothecaries' Amendment Act of 1874 enabled the Society to choose its examinent from outside its own corporate body; it abolished apprenticeship as a condition of obtaining the Society's licence, and it authorised the Society to strike off its list of licentiates any person convicted of felony or misdemeanour or who had been struck off the Medical Register for infamous conduct. The Medical Act of 1886 further enlarged the powers of the Court of Examiners by the examination being instituted in Surgery as well as Medicine and Midwifery, entitling the holders of the diploma to compete for medical appointments in the Navy, the Army, the India Service, and the Poor Law Administration. Justices Lawrence and Channell ruled in 1899 that a licentiate of the Society of Apothecaries is not entitled to describe himself as a physician, but from the Society's Acts arose that large and valuable class of medical men who (obtaining in addition to the licence of the Society, membership of the Royal College of Surgeons) became known to the public as general practitioners. By a more recent Act the holders of the Society's diploma became entitled to style themselves Licentists in Medicine.

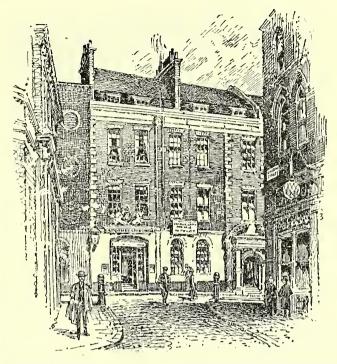
style themselves Licentiates in Medicine and Surgery.

In 1841 came difficulties over the chemists and druggists who had for some time become in the nature of rivals. They did not exist outside the Society as a representative and recognised body. A committee of chemists was formed and the outcome of it was the establishment of the Pharmaceutical Society of Great Britain. The Apothecaries' Society had always advocated an examination for chemists and druggists and did not see the need of a new body; but the movement grew. In 1852 the Pharmaceutical Society obtained their first Pharmacy Act by which the titles of "Pharmaceutical Chemist" and "Chemist and Druggist" were confined to its members.

## Chelsea "Physick" Garden

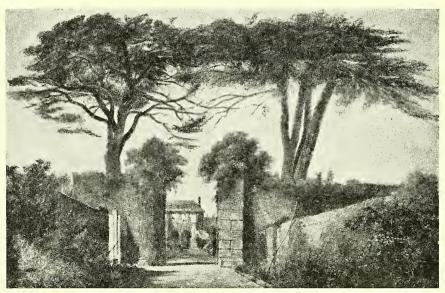
The Apothecaries' or "Physick" Garden at Chelsea was established by the Society in 1673 for the cultivation of plants of botanical and medical interest. In 1722 Sir Hans Sloane, who was then the ground landlord, gave the site to the Society on condition that they presented

every year to the Royal Society fifty dried plants until the number reached 2,000. That condition was accepted, and fulfilled in 1774. Owing to the heavy cost of maintenance and for



Apothecaries' Hall, London, from a drawing made before the Society disposed of its drug business, and showing coat of arms above dispensary

other reasons the Garden was, with the consent of the Charity Commissioners, in 1902 handed over to a Committee of Management in the interests of botanical study and research. For nearly 300 years the Society traded as wholesale druggists and had business connexions in all parts of the world. General practitioners who dispensed their own medicines were large customers. Shortly after the war, however, the difficulties of the trade became acute, and the Society, having made losses



Chelsea Physic Garden, showing two cedars of Lebanon, planted 1683; one died in 1903

for two or three years, decided to close down and dispose of the famous old dispensary. To-day the Society is as active as ever. Its Court may fairly be described as distinguished.





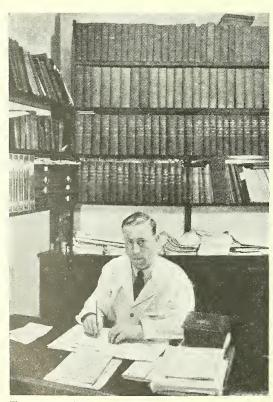
## PHARMACY IN HOSPITAL



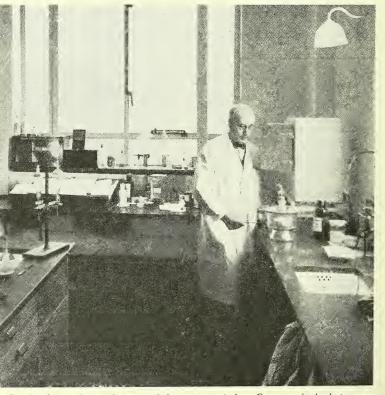
Contact with the outside world is through the hatch.



Stocktaking of the sterile solutions is a daily routine.



Time must be found for correspondence and keeping abreast of pharmaceutical and medical progress, as reflected in the Press.



Supplies have to be tested—many of them quantitatively. Consequently the drying oven is in frequent use. The chief pharmacist is seen at work with a desiccator.





# A Day in a Hospital Pharmacy

By HERBERT SKINNER, Ph.C.

T nine a.m. the key turns in the lock and in troops the laboratory staff. Overnight the pharmacy has become stuffy, and the smell of drugs is overpowering. So the first operation is to open all the windows and let in a little sweetness and light. The pharmacists arrive one by one any time before nine-thirty, each apparently anxious to finish reading his morning paper. The out-patient medical officer is already functioning, in theory if not in practice, and the laboratory staff has put forward what needs immediate atten-The requisition books for instruments and appliances have been examined and a note made of requirements that can be supplied from stock and those requiring to be ordered. A pharmacist ruefully examines the depleted reserves of sterilised solutions and proceeds forthwith to make good the losses. Meanwhile, other pharmacists are surveying the shop rounds to see whether the supplies in each section are sufficient to meet the dispensing needs for the day. Patients will presently be tapping at the hatch, and when that begins there is little time available for replenishing stocks. Tidying up was done overnight but slack moments are rare, as no one knows what mysteries the day's work will reveal or what demands are likely to be made. Tap, tap! The hatch is raised—the first out-patient (colloquially O.P.) has arrived. As often as not the wrong hatch has been tapped, but the matter is easily rectified. Early patients are usually bright and cheerful (probably at getting away so quickly), and members of the staff start off in an equally cheerful mood. The prescription, it may be, is a simple one for a new patient, and accumulations of prescriptions have not yet arisen. A mixture, a few tablets, perhaps from stock, are all that is required. Another insistent tapping, this time at the next hatch. When this is opened it reveals that patients are now becoming numerous. Only the "meek and mild," who have not the out-patient temperament, tolerate a closed hatch, so after more tapping up goes the last, and dispensing is in full swing for the day. clinic and several specials are functioning, prescription books and forms have now more items on and requirements are no longer plain and simple, but mixed (sometimes very mixed). It is astonishing how frequently the complicated prescriptions flow into one channel-so frequently as to make it appear that one pharmacist has an uncanny attraction for the simple forms while another acts as a magnet to all the unpleasant mixtures. Some can be really nasty. Mixing, weighing and blending (especially of ointments) are energy-consuming opera-At ten-thirty, all is steady movement at a quickening, but rhythmical, pace. The complicated prescribing has become better regulated and now the older cases are coming along. Their faces are well known to the dispensing staff, and some could almost be supplied without looking at the prescription.

Ah! Here comes an excess dose! A parley takes place—it is not initialled! The physician must be seen, so the pharmacist hurries off. Presently he returns, "Sorry, the doctor has left the department." A telephone hue-and-cry begins, to secure him before he is off the premises. More time and energy are consumed, and sometimes tempers may become frayed. At last he is run to earth, and more often than not his reply will be, "You know the dose better than I do; change it." Knowledge of human nature in general is an acquisition and of particular personalities priceless.

#### Work from the Wards

Eleven o'clock comes. In the outer laboratory piles of baskets from the wards appear, with containers empty and waiting to be filled. Gallon jars, Winchesters, pints, flasks of various sizes are sorted out and arranged into groups according to label, for refilling or replacement with other sterilised solutions. Lotions may be filled from bulk quantities or made from concentrations, but all must be filled, checked and sorted out for delivery to their correct destinations. A bottle going

astray in the hospital is like the scriptural lost piece of silver: one must search diligently until it is found, even if it means searching the whole institution. Yet there is no rejoicing when it is found, but usually only strong words. quiring special attention are D.D. and Schedule I supplies. for each must be checked, whatever interruption O.P.s may cause. Sterilised solutions in ever-increasing diversity constitute a continual disturber of the daily rhythm, and the usual plan is to get supplies ready whenever slack periods arrive. By twelve o'clock the stream of patients begins to thin out and attention can be paid to ward medicines, which are much more straightforward, but new complications arise from the lunch hour, because from 12.30 to 2.30 the staff is at only one-third strength. Someone must always be on duty. Nurses from the wards seem to think such a time opportune for getting odd requirements satisfied. A clinical thermometer, scissors, or scalpels may require attention (the number of appliances that run out daily keeps the subsidiary staff fully occupied). Rules and regulations exist, but every house surgeon or physician, sister or nurse regards them as justifiably waived in his or her special circumstances.

## Out-patients Again

At two-thirty, sometimes punctually, sometimes not, the stream of out-patients begins again. Ward supplies have been dispatched, and, if the visiting medical staff are slow starters, the cleaners in the pharmacy can get finished and out of the way of the dispensing staff, but congestion is invariable later on. The peak hour between 3.30 and 4.30 will show whether the pharmacist has filled his slack time usefully. Careful preparation always pays, for the rush hour is no respecter of persons but a sure detector of slackness. Seven or eight doctors pre-scribing, with three pharmacists to dispense their prescriptions, places big demands even on skilled men. An unwritten rule is to attend to the patient first and, if there is anything irregular, argue about it afterwards. From four until six a succession of nurses bring down new prescriptions arising from the visits of the honorary physicians (to say nothing of honorary surgeons). New or inexperienced nurses always want to wait for the medicines, as they interpret the sister's instructo wait for the medicines, as they interpret the sister's instructions too literally. They are politely but firmly requested to lay the case papers on the counter. The pharmacist dispensing medicines must not be disturbed; this is as great an offence as talking to the man at the wheel. All in good time the medicines will be delivered. Then the house 'phone starts its insistent appeal and no cross word stops its irritating insistence. "Hello? Yes?" Oxygen tent wanted right away. There is nothing for it but to take up the cumbersome appliance at once and fix it. This always seems to happen when every man is fully extended with other activities. If not the tent, there are a hundred other diversions to take a man to a remote part of the building and delay other necessary work. This frequently means staying late and provides another opportunity for one of the honorary staff to consult the pharmacist about a drug or preparation some medical representative has introduced to him. Frequently the consultation absorbs more time than the preparation is worth.

A brief interval for each one separately to get a cup of tea smoothes the last hour of the day. All hands must be on deck for the new ward prescriptions. These are usually complicated, but irregular in arrival and call for closer attention just when the feeling of fatigue is beginning to supervene. The last O.P. is by now departing, unless some physician has had an urgent call and left his patients for the H.P. (house physician), when a delay of anything from half to one hour may result. Usually six o'clock brings relief for all save the late clinic pharmacist. The latter's work is, however, normally comparatively light. By 7.30 there is the tinkle of the house 'phone, which, when it comes, is a welcome sound. It means "all clear," and we close down and "call it a day."





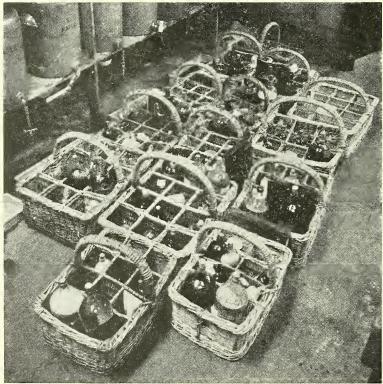
## PHARMACY IN HOSPITAL



Of the making of sterile solutions there seems no end.



Stock solutions are made in bulk in the warehouse.



Trouble follows if ward supplies are put in the wrong basket.



Some tasks may well be described as hard labour.

[The photographs were taken in the pharmacy department of the Royal Northern Hospital, London, by permission of the authorities.]





# Problems of Pharmacy Planning

HANGES in the character of the chemist's business during the last few years have raised many problems in shop planning that must be solved if the greatest amount of business is to be secured from every available inch of the premises. The average contemporary pharmacy has many departments which compete for attention. In addition to dispensing and the selling of medicinal supplies, space is almost invariably required for perfumery and toilet goods, photographic and cine supplies, first-aid equipment and surgical dressings, while, according to the locality and class of customers, veterinary preparations, infant and invalid foods, insecticides, food beverages or surgical instruments may bring sufficient volume of business to warrant consideration as separate departments. If the pharmacy is to perform its

adaptability about the interior arrangement. While certain features, such as the dispensing and main service counters and the stock units around the walls, may be regarded as fixtures, others ought to be kept relatively mobile and capable of being changed or adapted to suit the needs of the season or of different classes of customers. This principle of adaptability to seasonal and local requirements tends to become more important as competition from fixed-price bazaars, multiple and department stores increases. Without attempting to copy the methods of these centrally-controlled organisations, the chemist must be prepared frequently to change his methods of presentation, and to make sure that the fittings he uses are suited to the nature of the merchandise. The policy of "making do" is false economy in the long run. It is not

sufficient for the chemist and his staff to know where to find everything in the shop at a second's notice; to-day it must be almost as easy for the customer to do the same. The pharmacy must thus be departmentalised. Customers are more easily induced to make supplementary purchases if the various classes of merchandise are grouped together and attractively presented. The importance of segregation is seldom appreciated by the chemist with a small shop, but if a cramped and jumbled effect is to be avoided it is extremely desirable that the swall shop shall be planned to provide facilities for separate displays of groups of merchandise. This can often be done by reducing counters and other fittings occupying floor space to a minimum and having recesses for display and service at intervals in the runs of wall fixtures.

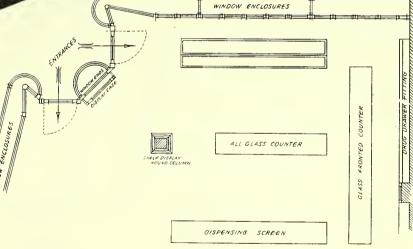


Pharmacy fitment offering facilities for service from front and (right), plan of premises of Mr. H. Lewis, Poole, Dorset, showing positions of fitments.

varied functions adequately, each of these departments or classes of merchandise must be allotted its correct proportion of space in the shop plan. The position and area occupied must be governed, first by the policy of the būsiness, secondly by demand, and thirdly by season.

#### Elastic Layout

In the majority of pharmacies considerably less than fifty per cent. of the activities are devoted to dispensing; the rest is plain selling, and it follows that a main aim in planning must be to provide for the most effective display of merchandise. The test of the planner's skill lies in his ability to achieve this result without detriment to the professional standing of the pharmacy. The layout of equipment and goods has a vital bearing upon sales; but, perhaps unfortunately, the sequence of cause and effect must often be reversed, and the shop planned according to the actual buying habits of customers instead of by considering only the goods it is desired to sell to them. This makes it necessary to have an element of elasticity and

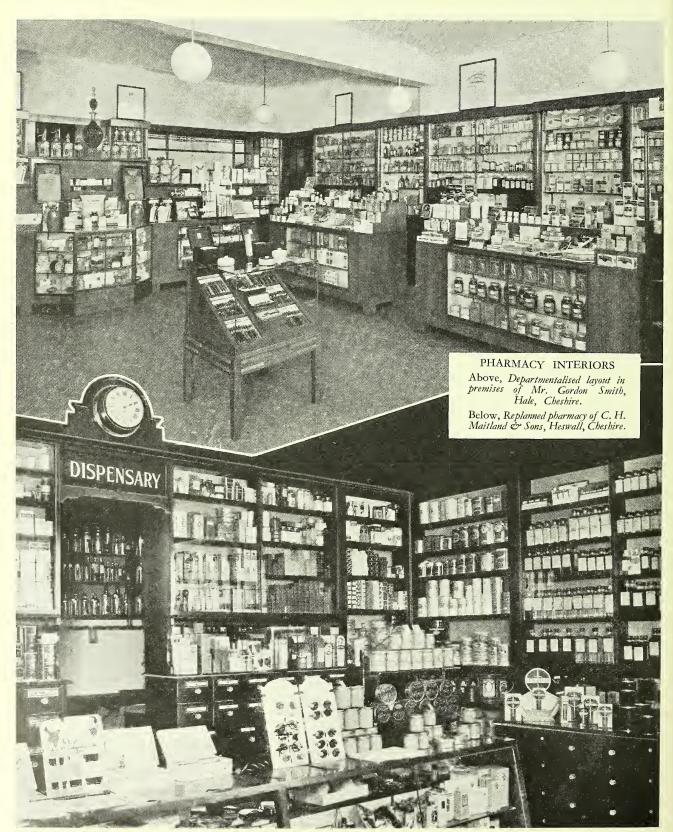


#### Service from the Front

Small shops can seldom be planned to advantage unless the chemist is prepared to encourage innovations on the part of the designers. One of the first points to be realised and conceded is that, regardless of the size of the shop, the space occupied by stereotyped or "orthodox" counters may be reduced with advantage. Elimination of long counters is the first step towards individualising the pharmacy. With this in mind, most shopfitters who specialise in equipping pharmacies have



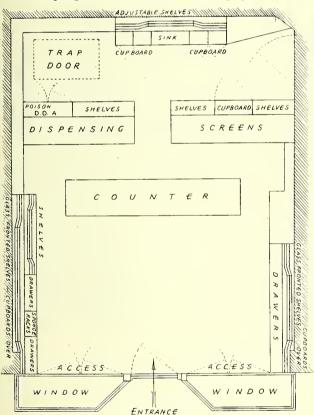








given considerable attention recently to the production of fittings which enable service to be given from the front. By this means chemist and customer are brought into closer contact and a more professional atmosphere is created. In view of the tendency for increased prescribing of proprietary preparations to lessen dispensing activities and the marketing of "own" specialities, there is a risk in many pharmacies that assistants will be content to hand over the counter just what they are asked for without devising preparations to meet the customer's individual requirements. This risk is reduced if the shop is planned to give the minimum "over-the-counter" service, and to bring out the personal element. A further advantage to the private chemist is that this method makes possible an intimacy and "personal touch" lacking in multiple establishments. Fittings with facilities for service from the front have the further advantage that they can be used in positions where ordinary counters would be unsuitable. An example of this is provided by the pharmacy of Mr. H. Lewis of Poole, Dorset, who has a shop with a long return frontage along which is a succession of display windows (see page 773). The glazed backs of these windows continue almost to the flort method of the shop, with the result that a side that would normally be occupied by wall fixtures is rendered relatively sterile from the point of view of storage or display. If ordinary counters were placed in this position, with space for serving from the back, access to the windows would be impossible without interrupting service. Showcases or display tables could



Plan of shop premises, C. H. Maitland & Sons, Heswall, Cheshire. (Measurements are included in text.)

certainly be placed at intervals, but there is a limit to the effective use of non-service equipment in this way. Corner shops of this type are by no means rare, and the methods employed by Philip Josephs & Sons, Ltd., to make best use of the available space in such premises is therefore of general interest. A fitting was specially constructed to provide facilities for serving from the front. It comprises two large showcases, each fitted with three rows of open-fronted trays to be drawn out from the front. Above these stock trays is a shelf for display, illuminated from the top of the case by strip lamps.



Both cases are faced by sloping glass sliding doors, and lined at the back and sides with oak veneer. Between the two cases are sponge drawers, with glass fronts sloped at the same angle as those of the glass cases, and between the drawers is a pull-out flap, upon which articles removed from the trays on either side can be placed for customers' inspection. This fitting is 4 ft. 6 in. high, 2 ft. 6 in. deep at the bottom and r ft. 3 in. deep at the top. The lower portion which, in the example shown, is panelled, can be fitted with stock drawers if desired.

A pharmacy with a large dispensing practice must, even more than others, provide scope for adequate display without subordinating the professional side. In a business of this description, it is wise to preserve as many as possible of the traditional attributes of pharmacy consistent with con-temporary methods of showmanship. The recently replanned pharmacy of C. H. Maitland & Son, The Mount, Heswall, Cheshire, provides an excellent example. This is an old-established business having a valuable dispensing connexion with local doctors. It was important that the dispensary should be bright, prominent and businesslike in appearance, so that the doctors would be encouraged to pass through from the shop and have a chat if so disposed. The shopfitters, Evans Sons Lescher & Webb, Ltd., had also to bear in mind that the majority of the customers of this pharmacy were conservative and that, for this reason also, it was desirable to have a blend of traditional characteristics with modern service and display facilities. One of the difficulties they had to face in planning was lack of storage space. This was successfully overcome by installing a series of store cupboards between the top of the wall-fixtures and the ceiling. Continued at the same level around the dispensary they now constitute an excellent method of putting to good use a space which is frequently wasted, is dust-collecting, and sometimes, in the absence of a good collection of pharmacy jars, cluttered up with showcards. All the woodwork is of a rich nut-brown oak, and the metal parts are of bronze. several positions in this shop piers project from the wall. These have been concealed by shallow cupboards faced with mirrors. The lower portion of the left half of the left-hand wall-fixture has three nests of five stock drawers and a set of interchangeable and removable sponge trays enclosed by glass doors. Each of the former is fitted with glass knobs and ivorynumbered discs, the latter being used in conjunction with a stock chart, by means of which the nature of the contents of each drawer is entered opposite a number corresponding with



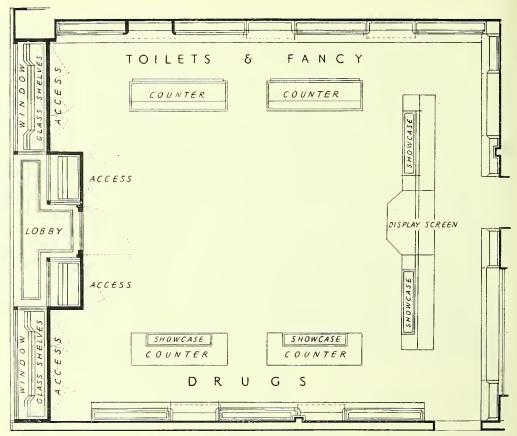


that on the drawer. this method the newest and youngest assistant can tell at a glance the exact location of any article in stock. On top of the drawers is a deep service shelf with mirrored back, and above this are stock shelves faced with sliding glass doors. The other half of the left-hand wallfixture is fitted with open The right wallshelving. fixture differs in minor respects only. Although the dispensary is little more than a quarter the size of the shop, skilful planning and effective use of maximum shelf space has obviated congestion and inconvenience. The screen, access through which is provided by a central opening, is carried to the same height as the wallfixtures to provide maximum stock capacity on both sides. On the back it incorporates poison and D.D.A. cupboards, drug drawers, and open shelving. On the front are two sets of open shelves and two others enclosed by glass sliding doors. Drawer labels on one side of the opening bear the usual descriptions and on the other single reference letters. The fixture on the back wall of the dispensary is

fitted, in the upper section, with a series of adjustable shelves. The lower portion is equipped with cupboards, two on either side of a rubbish recess beneath the sink. The draining board on one side of the sink and the flat surface for completed prescriptions and bottles ready for delivery on the other have surfaces of a white plastic material. This is noteworthy, for plastics are still relatively rare in shopfitting. Behind the sink is a splash back of white opaque glass. The depth of this pharmacy is 20 ft. 7 in. The selling portion is 12 ft. 7 in. wide (from front to front of wall-fixtures on side walls) and 8 ft. 8 in. deep from window enclosure to main serving counter. The dispensary is 3 ft. 9 in. deep from back of dividing fixture (dispensing screen) to front of back wall-fixture, and 15 ft. 3 in. wide, inclusive of a 6 in. deep fixture on the left-hand wall. The main serving counter is 9 ft. long. Space between this and the dispensing screen is 2 ft. 3 in., and the screen itself is 2 ft. 3 in. deep. Central space giving access to dispensary is 2 ft. wide.

## Alternating Recesses and Showcases

Another example of modern pharmacy planning, also from Cheshire, is an entirely new shop recently completed for Mr. Gordon Smith at Ashley Road, Hale, which shows what can be done in the way of departmentalisation in a capacious pharmacy (see page 774). The exterior and dispensary of this pharmacy have previously been illustrated in the C.  $\Leftrightarrow$  D., (May 7, p. 523). All the equipment has been specially designed and uniformity has been achieved without monotony by having the wall fixtures around the shop arranged as alternating display recesses and showcases enclosed by glass sliding doors. For emphasis of the former, the band of vertically grained veneer is projected to form shallow canopies equipped with striplamps. From the window enclosures to the back wall the shop is 27 ft. and from sidewall to sidewall  $24\frac{1}{2}$  ft. This gave ample opportunity for a departmentalised layout, while leaving a



Shop plan and counter layout, Mr. Gordon Smith, Hale, Cheshire. (Dimensions and floor area are given in text.)

central open space of 19 ft. by 14 ft. The left-hand fixtures, with two service counters in front, are given up to toilet and fancy goods, while those on the right are devoted to proprietary medicines and general stock. The dispensary is a separate room of unusually generous proportions, and glass panels providing a glimpse of this, while at the same time incorporating a hatch for service, form part of the back wall-fixture, access being provided by a centrally placed doorway. Immediately in front of, and practically concealing, the back wall-fixture is an entirely original type of fitting, comprising a combination of screen, counter, and showcases, providing excellent facilities for display in front and for wrapping, packing and other services at the back. This fitting is 16 ft. long and 2 ft. deep, back to front, increased to 3 ft. at the centre, where a triple-fronted glass showcase and an ornamental carboy over the central and highest portion of the screen provide a focal point for the interior plan. A rectangular aperture in the centre panel reveals the purchasing figure signalled by the cash register. The floor of the dispensary is higher than that of the shop, and thus enables the whole of the selling portion of the premises to be seen through the clear glazed partition which bears in etched letters the words: "Dispensing Department." Two 6-ft. long counters on the drug side of the shop are designed to afford facilities for convenient service with maximum scope for display and storage. They incorporate shallow showcases enclosed by glass sliding doors and clear-glazed top portions. A sturdy alternative to glass or metal stands for display is provided by the stepped devices at either end (in the same veneer as the counter itself), while behind the central service space at the top of the counters are long display blocks of similar finish. Frederick Sage & Co., Ltd., the shopfitters, augmented the interior display space by fitting shallow show-cases at the back of the two small windows flanking the entrance door. Each of these is equipped with eight shelves on adjustable brackets.



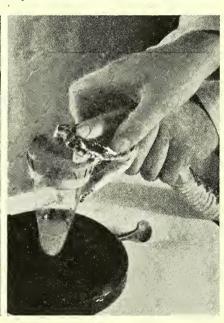
# Snake Venom Against Snake Bite

NTIL the advent of anti-venom serums prepared from the venoms of the snakes themselves there was little hope for snake-bite victims who had received a lethal dose of venom. The only exception was that in patients in whom the dose was little above the lethal minimum, local measures were often successful in removing sufficient venom to bring what remained within the limit. Victims who, for various reasons, such as small size of the snake, small store of venom in the glands, or obstruction due to clothing, had received less than the minimum lethal dose recovered after a time, irrespective of the treatment. This consideration still applies. In the preparation of anti-venom serum, use is made of the principle that injection of snake venom into animals causes the formation of a substance in the blood serum that is a specific antidete to the venom injected. Horses are generally used for the purpose. They are systematically treated with gradually increasing doses given hypodermically over a period of some months, by which time the serum is active enough to give results in treatment. Although the serum produced is ineffective against the venom of other varieties of snake than that of the one or more types used, the method of obtaining the venom is uniform, advantage being taken of the snake's

drawn off with varying amounts of standard venom solution, subsequently injecting the mixtures intravenously into pigeons. When this amount of serum counteracts the lethal effect of one milligram of standard vcnom, bleeding of the horse is carried out and the clear serum separated from the clot. Afterwards the serum is concentrated. A specific anti-venom-serum treatment is invariably successful where practicable, but for various reasons it is not always possible. Thus, some varieties of poisonous snake are so sparsely distributed that the preparation of serum for storage, to use when the occasion arises, is impracticable. Further, the victim may be injected by the snake with a dose sufficient to kill two or more people. the dose of anti-venom scrum required to be effective is strictly proportionate to the amount of venom that enters the victim, the administrative dose required is not only excessively large, but also the patient usually succumbs before help can be given. These considerations militate against the hope that it will ever be possible to obtain complete mastery over snake-bite; nevertheless, the method is of a value that can hardly be overestimated. In countries infested with poisonous snakes it is possible to prepare a polyvalent serum effective against the snakes most frequently encountered, and the concentrated







The head of the snake is grasped (left) and the fangs directed (centre) through a membrane; pressure on the glands (right) forces the venom into the receptacle.

anatomy and method of injecting the venom. The fangs of a snake are modified maxillary teeth. In one sub-division, the Colubridæ (which includes the cobras) the fangs are grooved along the upper surface; in the Viperidæ (vipers), they are longer, dart forward in use with a rotatory motion, and are equipped with hollow tubular ducts through which the venom passes into the punctured skin. The venom is secreted by glands situated at the side of the head and ejected through a slit-like opening near the end of the fang. To obtain it for medicinal purposes a membrane is substituted for the victim's skin. The snake is grasped behind the head and the erected fangs are forced through a membrane stretched across a conical measure. To compel the venom to pass through, pressure is applied to the glands. The yellow liquid collected is cleared of cellular matter by centrifugation, while still fresh, and dried. In the dried state it remains active for years, being dissolved in water to a suitable dilution before injection into horses. When the serum of the horse is considered to be ripe for use in treatment, tests are made by mixing one c.c. of blood serum

character of the product enables it to be included in the equipment of travellers or readily transported to outposts far from medical aid and used to save lives where they are, for obvious reasons, most likely to be attacked.

In the treatment of snake bite, anti-venom serum is used as one of a number of measures. As speedily as possible after the bite a ligature is applied to the arm or leg above the site (in less than one per cent. of cases is the bite in the head or trunk). The effect of this procedure is to prevent absorption of the poison, at least partially, and to cause swelling around the puncture. Next, incisions are made around the seat of the bite so that unabsorbed venom may flow away from the wound in the bleeding process. Suction is applied if practicable, either by mouth (the venom acts only through the medium of the blood) or by instrument. Attempts are made to neutralise any unabsorbed venom. When the local treatments have been effectively commenced, injection of anti-venom serum is made intramuscularly or intravenously above the ligature.

(By courtesy of Sharp & Dohme, Ltd.)





## JUNGLE HOLIDAY

Right, Beaters crossing the river on foot; Europeans followed by bullock cart. In the rainy season the river is impassable.

Below, "Sabib-log" returning from tiger beat seated on "charpoys" (native beds). The base of the bullock cart was submerged during the crossing.







Wild boar shot for beaters' Christmas dinner.



Village youth plays heroine in "shooting" of sambhur-deer camp pet.



Awaiting the King's Christmas broadcast.



Author of "Big Game Encounters" in group on arrival at camp.





# Jungle Holiday

By ALBERT MARSHALL

N these days it is possible for almost every chemist to spend a holiday on the Continent of Europe or even to visit America, but few indeed have the opportunity of enjoying a vacation such as is described here. One of the compensations offered to the chemist overseas for some of the amenities of civilisation he leaves behind when he leaves his native land is the opportunity which comes his way on occasion to enjoy relaxation of a nature not possible to his confrères at home.

A friend of mine, editor of an Indian weekly publication, and author of a book on big-game hunting, asked me if I would care to join him at a camp during the Christmas holidays. He is a keen amateur cinematographer and his object, he explained, was the shooting of a film of a rather more ambitious nature than usual. We shot the film—about 1,200 feet of it—and had a most interesting holiday as well.

Leaving Bombay late on Christmas Eve by train, we arrived at a station some 280 miles away just after dawn. Having unloaded our gear, which almost required a special train of its own, we packed it again into our hired lorry, which then followed the car of our host to his camp some thirty miles away. Our host was a Forest Officer, and his camp, situated on the banks of a river on the borders of the Bombay Presidency and the Central Provinces, was reached by a route which, after a few miles, deteriorated into a bullock-cart track and ended up eventually as a poor imitation of a goat-track. It is amazing what a really determined driver can do when encouraged by the presence of friends and in festive mood. covered that thirty miles under the hour, and did everything but climb trees. "Everything" included the crossing of dry river beds, climbing banks at a precipitous angle, over boulders and crossing a natural arch with a free-board of about 1 cm. on either side of the wheels. Before crossing one of the rivers we had to put down dried rushes to enable the wheels to get a hold on the mud. The camp was worth all the trouble of getting to it. Ideally situated and comparatively well furnished, it glistened in the morning sunshine and the clear air of an altitude of about 2,000 feet, the game-famous Satpura hills forming a natural background for the scene before us.

#### A Memorable Christmas Day

Our gear was soon unloaded and our camp beds, canvas baths and wash bowls set up in the canvas bathrooms. a clean-up came breakfast of fried chital liver. Immediately after breakfast serious work on the film started, broken only by the tiffin interval, occupied in disposing of chital steaks from the animal which had provided the liver for the previous meal. During the tiffin hour we switched on a portable battery-operated wireless set, brought with us from Bombay, and tuned in to a number of Indian stations. At that altitude at this time of the year there is a definite nip in the air after dark, and so we gathered round the camp fire of babul thorn tree for that delightful hour of the Indian day—chota-peg time. Before settling down, we switched on the wireless again and Indian instrumental music from Delhi pierced the night. camp was situated near to a jungle village, and as soon as the head man of the village, who was awaiting his instructions for the morrow, carried the news back to his folk that the Sahib-log had a marvellous Indian baja (band), the entire male population of the village, from the chokra of five to the male population of the village, from the chokra of five to the greybeard of fifty-five, migrated to the camp. They had never heard a wireless before, and the simple faith with which they accepted our somewhat halting explanations, made more difficult by the language used, was almost pathetic. Their expressions of fascination and delight were well worth the trouble taken to set up the receiver. At twenty-five minutes the pathetic of the pathet past eight we tuned in to Daventry, and heard that most thrilling of all announcements to the Briton oversas, "London calling the Empire." The reception was splendid, but it was being badly jammed by Continental stations working on practically the same wave-length. Time was passing, and so we tuned in to the medium-wave-length Bombay station, where

they were relaying the Christmas Day programme from home. Before we did so we told the villagers that their "Badshah" (great Maharajah or King) would speak to them. As soon as His Majesty was heard they rose like one man and stood until the end. I thought of my wife in London listening, and I thought of these simple villlagers listening, and realised that, great as was the gulf between us, it was yet bridged by that indefinable something expressed in the word "Empire," the British Commonwealth of Nations. Just before the King's speech I was fortunate enough to secure a flashlight photograph of the villagers nearest to the receiver, and it well represents their intense interest—even the dog is listening. For our Christmas dinner we got as near as we could to the traditional feast, and, in the absence of turkey, a specially fattened and well-fed goose served well.

## Hunting with a Camera

I was up before dawn the next morning and away across the river with my own particular shikari (hunter) and armed, not with a rifle, but with a camera, for once across the river we were in a game sanctuary. The gods smiled upon us, for in less than an hour's stalking through the jungle, we were privileged to see at feed sambhur, nilghai, chital, innumerable jungle birds and duiker (pig). Not the white-skinned domesticated pig, but the huge wild boar of Central India, the fellow standing four feet at the shoulder and the size of a young donkey—a dangerous beast when hunted, especially if wounded. Tiger pugs we saw down by the river, and a day or so later we had a tiger beat in the hope of obtaining photographs. The work of the film proceeded. Our scenario called for a village maiden, but prejudices of caste and race were such that we had to employ one of the village youths for the part. He proved an apt pupil and after a little rehearsing acted well; so well, indeed, that it was difficult to realise that he was not actually a woman. We were fortunate in obtaining ciné shots of various animals, wild, from deer to monkey; and domesticated, from camel to buffalo, and all appeared in our film. Then we beat for tiger. About 150 beaters covered two square miles of ground, but "Stripes" must have had wind of our coming, for we drew blank so far as he was concerned.

One very unusual incident occurred during the beat when a nilghai charged a beater (this I am told is unprecedented). It happened some distance from my machan and I did not hear of it until the beat was over and we were on our way back to camp. Being a chemist I was called upon for first-aid and diagnosed the damage as a dislocated or a broken shoulder. In the twenty years I have been knocking about the world, this was the only occasion on which I did not have with me my first-aid kit. However, with the help of a pad of cotton wool from the camp medicine chest and a few yards of jute webbing, aided by a couple of safety pins, the victim was trussed up pretty well to enable him to make the thirty odd miles journey to the railway hospital without serious damage, notwithstanding the roughness of the passage over the socalled road. By the time we had got the beater patched up and despatched it was late, but we decided to wait up for a doctor. Expert examination proved the diagnosis to be correct and the first-aid treatment for it satisfactory. Our host's wife, who accompanied us on the beat, which took place in the afternoon, had developed heat-stroke. Again I was called on for first-aid. We were without ice, but with the aid of an old Indian trick we were able to produce water cold enough to assist in our ministrations. The doctor and his driver had the Christmas spirit, too, for they missed the camp in the dark and drove on and on; by the time they had eventually found us they had covered seventy miles instead of the necessary thirty. At the end of our stay in camp the casualties had recovered; we had 1,200 feet of 16 mm. film to be developed, edited and titled and I had gained further experience in the craft and collected some thirty odd photographs to add to my records of a chemist on holiday.



THE CHEMIST AND DRUGGIST June 25 Special Issue



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## Trade Report

Where possible scales of prices of chemicals are given for bulk down to small quantities. Prices recorded for crude drugs, essential and fixed oils and coal tar products are for fair sized wholesale quantities. Qualities of chemicals, drugs, essential and fixed oils, etc., vary, and selected brands or grades would be at higher values

#### 28 Essex Street, W.C.2, June 22

A GENERAL BUT SLIGHT improvement in business is recorded this week and the tone and outlook are certainly better than they have been for some few weeks. Some of the depressed speculative commodities show signs of recovery with more life in these markets. In the Pharmaceutical Chemical markets conditions show little change on the week with Benzoic Acid (B.P.) and Sodium Benzoate quoted at the cheaper figures recorded last week. Business in Crude Drugs continues on a fair scale, but is still chiefly concerned with the sale of spot supplies. There is a good deal of interest in the shipment market for new crop Curação Aloes but, so far, the source has not indicated their price. Shipment quotations for new crop Cascara Sagrada continue downwards with business for this market still negligible. Japanese Menthol is quiet on spot, but fully steady for shipment. Rubber shows a good recovery on the week, with quite a fair demand. There has been a welcome modest increase in the general demand for Essential Oils during the past ten days, but competition in some products is spoiling the markets. indicated last week, the spot market for ANISE (STAR) is firmer with much more business passing. The latest cables from the source state "no offers, stocks exhausted." Consequently, spot holders are now reserved with their ideas of values firming up. News from the source shows an advance in shipment prices for remaining old crop stocks of LAVENDER and LAVANDIN. This is stated to be due to the poor state of the plants which have suffered severely from prolonged drought. Sicilian Lemon is steady for shipment but the demand for this market remains quiet. French Guinea Orange is selling quietly on spot at keen prices. Spot demand for Japanese Pepperramnt has been slow, while shippers' quotations are being fully maintained.

#### Exchange Rates on London

The following is a list of the chief Continental and other exchange rates at the opening on Wednesday morning:—

Centre	Quoted	Par	June 16	June 22
Berlin Brussels Copenhagen Lisbon Madrid Milan Montreal New York Oslo Paris Prague Stockholm Warstaw Zastaw Zasta	FIs. to £  Mks. to £  Belgas to £  Esc. to £  Ptas. to £  Dols. to £  Dols. to £  Fr. to £  Kr. to £  Tr. to £  Kr. to £  Tr. to £  Kr. to £  Kr. to £  Tr. to £	12·107 20·43 nominal 18·159 110 25·24½ 92·46 4·86¾ nominal 18·159 124·21 164·25 18·150 43·38 25·2115	8 · 95 ³ / ₄ 12 · 30 29 · 23 22 · 40 110 ³ / ₆ nominal 9 ⁴ / ₂ 4 · 97 ³ / ₄ 5 · 93 19 · 90 178 ¹ / ₄ 14 · 2 ³ / ₆ 19 · 40 26 ³ / ₈ 21 · 65	8·95 12·29 20·20 22·40 110s nominal 94s 5·00s 4·96 19·90 177s 142s 19·40 20s 20s 20s 20s 20s 20s 20s 20s 20s 20s

Bank rate 2 per cent.

#### Pharmaceutical Chemicals, etc.

While the general tone continues quiet, reports indicate a rather better demand for some products. Makers' prices for benzoic acid and sodium benzoate continue at the reductions notified last week.

ACETANILIOE.—Remains quiet: B.P. crystals and powder, is. 7d. to is. 102d. per lb., as to quantity.

Ammonium ichthiosulphonate.—One cwt., is. 6½d., in 14-lb. tins; is. 8d. in 1-lb. tins; is. 10d. in 8-oz. tins, and 2s. 1d. per lb. in 4-oz. tins.

Aspirin.—Makers' and dealers' prices are steady: home trade, ten cwt., 2s. 7d.; five cwt., 2s. 8d.; one cwt., 2s. 8½d.; 28 lb., 3s.; 14 lb., 3s. 1½d.; 7 lb., 3s. 2¾d.; 4 lb., 3s. 4½d.; 1 lb., 3s. 7d. per lb. Bulk packing free, net, carriage paid. Contracts over twelve months, minimum one ton; over six months, less than one ton.

Benzoic acid (B.P.).—Makers' prices continue at the reductions notified last week: five cwt., is. 7½d.; one cwt., is. 8d.; smaller parcels, from is. 9d. up to 2s. 2d. per lb., as to quantity.

Citric acid (B.P. crystals).—Summer trade continues good. British makers' quote at is. old. per lb. less 5 per cent. discount, without engagement. Dealers' quotations for imported material are competitive.

Cream of tartar.—Steady, with average trade. British makers quote 99 to 100 per cent. at 92s. per cwt., less 2½ per cent. discount, without engagement. Dealers' quotations for imported material are

EPHEDRINE.—Market is dull and competitive. Hydrochloride, B.P., 7s. to 8s. 6d. per oz., as to quantity. Pure, alkaloid, 9s. 6d. to ios. 6d. per oz.

Gallic acid.—Quoted unchanged: one cwt., 3s.; 56 lb., 3s. id.; less than 56 lb., up to 3s. 6d. per lb.

GLYCERIN (B.P.).—Makers' prices for home trade continue steady at former figures.

METHYL SALICYLATE.—Rather quiet; makers' quotations unchanged: spot, ten cwt., is. 1\(^1\)d.; five cwt., is. 2d.; one cwt., is. 2\(^1\)d.; less than one cwt., is. 3d.; small quantities, in bottles, up to 2s. per lb.

Phenacetin.—Limited demand, quoted unchanged: crystals or bowder, bulk quantities, 2s. 6d.; smaller parcels, 2s. 7d. to 3s. per

lb. as to quantity.

PHENAZONE.—Quiet and very irregular on quotation: crystals, five cwt., 6s. 9½d.; two cwt., 7s.; one cwt., 7s. 3d.; and less, 7s. 6d. per lb., with powder 2½d. per lb. extra.

Bb., with powder 2½d. per lb. extra.

Photographic chemicals.—Home makers' prices are as follows:

Amidol.—28 lb., 8s.; 14 lb., 8s. 9d.; 7 lb., 9s. 6d., in free 7-lb. tins; under 7 lb., 12s. per lb., in free 1-lb. bottles. Chlorquinol.—1-lb. bottles, 21s. per lb. Glycin.—7 lb., 10s. 6d.; 1-lb. bottles, 13s. 6d. per lb. Hydroquinore.—56 lb., 4s. 10½d.; 28 lb., 5s.; 14 lb., 5s. 3d.; 7 lb., 5s. 6d.; in 1-lb. bottles, 6s. 6d. per lb. Metol.—28 lb., 9s. 6d.; 14 lb., 9s. 9d.; 7 lb., 10s. 6d., tins free; 3 lb., 12s., bottles free: 1-lb. bottles, 12s. 6d. per lb., bottles free. Alum (Photographic Quality).—1 cwt., 21s. per cwt., 28 lb. for 6s. Gold chloride.—15-grain tubes, 45s. per doz. Magnesium powder.—10s. per lb. Paramido-phenyl hydrochlor.—8s. 6d. per lb., bottles free. Potassium ferricyanide.—14 lb., 2s. 2d.; 7 lb., 2s. 4d.; 1 lb., 2s. 6d. per lb. Potassium metabisulphite.—One cwt., 8d.; 28 lb., 9d.; 14 lb., 10d.; 7 lb., 1s. per lb. Pyrogallic acid, cryst.—28 lb., 7s. 3d.; 14 lb., 8s.; 7 lb., 8s. 9d.; under 7 lb., 9s. 3d. per lb. Sodium (carbonate recryst.)—5 cwt., 12s. 6d. per cwt.; 1 cwt., 15s. 6d. per cwt.; 56 lb. for 1s. 6d.; 28 lb. for 6s. Sodium sulphide (Pure).—7 lb., 1s. 9d.; 1 lb., 2s. per lb., bottles and jars free. Sodium sulphite, cryst.—One cwt., 21s. 6d. per cwt.; 56 lb. for 1s. 6d.; 28 lb. for 6s. Sodium sulphide (Pure).—7 lb., 1s. 9d.; 1 lb., 2s. per lb., bottles and jars free. Sodium sulphite, cryst.—One cwt., 21s. 6d. per cwt.; 56 lb. for 13s. 6d.; 28 lb. for 7s.

Quinne salis.—Convention prices continue unchanged: sulphate, between the salisables.

Quinine salis.—Convention prices continue unchanged; sulphate, 2s. 2d.; bisulphate, 2s. 2d.; ethyl carbonate, 2s. 9\frac{3}{4}d.; salicylate, 2s. 10\frac{1}{2}d.; hydrochloride, 2s. 8\frac{1}{2}d.; dihydrochloride, 3s.; hydrobromide, 2s. 8\frac{1}{2}d.; dihydrochloride, 3s.; valerianate, 3s. 8d.; hydrophosphite, 4s.; alkaloid, 3s. 0\frac{1}{2}d. per oz., carriage paid on bulk quantities; 100-0z. tins free, smaller packages extra.

Salicylic acid (B.P.).—Market is steady: five cwt., is. 7d.; one cwt., is.  $7^{\frac{1}{2}}$ d.; 28 lb., is. iod.; i4 lb., is. ii $^{\frac{1}{2}}$ d.; 7 lb., 2s.  $0^{\frac{3}{4}}$ d.; 4 lb., 2s. 2½d. per lb.

SODIUM BENZOATE (B.P.).—Makers' prices continue at the reductions recorded last week: five cwt., is. 3½d.; one cwt., is. 4d.; smaller parcels, from is. 5d. up to 2s. per lb., as to quantity.

#### Crude Drugs, etc.

Agar.—Quiet on spot and for shipment: spot, Kobe, No. 1, 2s. 10\frac{1}{2}d. to 3s.; No. 2, 2s. 9\frac{1}{2}d. Yokohama, No. 1, 2s. 10d. per lb.; shipment, Kobe, No. 1, July-August, 2s. 5\frac{1}{4}d.; No. 2, 2s. 3\frac{3}{4}d.; Yokohama, No. 1, 2s. 4d. per lb., c.i.f.

Aloes.—Curação continues in demand at full prices on spot. Bids at quite good figures have been cabled this week to the source for new crop but have so far not been accepted nor countered. Cape steady and unchanged: Cape, spot, 63s. to 64s.; shipment, about 62s. 6d. per cwt., c.i.f. Curação, spot, now quoted from 137s. to 150s. per cwt., as to quality.

Experts from South Africa Quality.

Exports from South Africa during January-March, 1938, totalled 158,715 lb., valued at £3,713, as compared with 229,645 lb., valued at £4,837, in the corresponding period of 1937.

Antimony.—Market shows no further depreciation. Chinese crude, spot, £38; shipment, £30. English, regulus, spot, £70 to £71 per

Camphor.—Business slow: Japanese monopoly BB brand £7 10s. per 100 lb.; this price now officially quoted: Japanese, natural, spot, tablets, 2s. 6½d. powder, 2s. 3½d.; slabs, 2s. 3½d. per lb., ex store; shipment, tablets, 2s. 2d.; powder, 2s.; slabs, 1s. 11½d. per lb., c.i.f.; English refined flowers, one cwt., 3s. 1d.; 28 lb., 3s. 2d.; small lots,



## THE CHEMIST AND DRUGGIST Special June 25



3s. 3d. per lb. Transparent tablets, 4 oz., 8 oz. and 16 oz., 3s. 4d.; 1 oz. and 2 oz., 3s. 5d.; ½ oz., ½ oz. and ¼ oz., 3s. 6d. per lb.

CASCARA SAGRADA.—Shipment offers from the source for new crop bark continue downwards and are now at about 33s. 6d. to 34s. per cwt., c.i.f., in minimum carload lots. Buyers remain mostly uninterested. This price is likely to slacken off collection of the bark.

CLOVES.—Values maintained, market rather dull. Zanzibar, spot, 81d.; shipment, June-July, 8d., c.i.f. Madagascar, in bond, 67d.

shipment, June-July, 63d. per lb., c.i.f.

The landings of Zanzibar in London during the week ended June 18 were nil, and the deliveries nil, leaving a stock of 1,128. From January 1 to date the landings of Zanzibar have been 1,389 and the deliveries 1,330. Landings of Madagascar for the week ended June 18 were 392, and the deliveries 1,38, leaving a stock of 1,522. From January 1 to date the landings of Madagascar have been 1,731 and the deliveries 1,685 packages.

COD-LIVER OIL.—Bergen reports the shipment market continues steady, business limited: finest Lofoten steam-refined non-freezing medicinal oil, 90s. per barrel, c.i.f. London. Small lots, on spot, about 132s. 6d. per barrel, ex store, duty paid. British finest medicinal oil, 115s. per 25-gallon drum, delivered U.K., with rebates for 25 or more drums.

Ergor.—Owing to the lack of offers the shipment market for Portuguese is nominal at the last quotations of 4s. to 4s. 2d., c.i.f.

Spot values remain unchanged.

GENTIAN.—Rather quiet spot demand. Good clean French root, 38s. to 39s. Continental, about 37s. per cwt., ex store.

GUM ACACIA.—Market is dull: Kordofan, cleaned sorts, spot,

378. 6d. shipment, 35s. per cwt., c.i.f.

HONEY.—A fair amount of inquiry continues on spot, chiefly for new crop Jamaican, which is quoted from 30s. for dark manufacturing up to 45s. for pale set. Californian, duty paid, 52s. 6d. Canadian, firm at 55s. ex store.

Hydrastis.—Steady but quiet: spot, 2.3 hydrastin, 14s. 9d. to

15s.; U.S.P., 14s. 6d. to 14s. 9d., and untested root, 14s. to 14s. 3d.

per lb., ex store.

Menthol.—The Japanese product is selling quietly on spot; shipment market quiet but fully steady. K/S brands, spot, 12s. 3d. to 12s. 4d.; in bond, 11s. Japanese shippers quote up to August at 10s. 6d. to 10s. 9d., c.i.f., as to shipper. Chinese, spot, 12s.; shipment, July-August, 10s. per lb., c.i.f.

MERCURY.-First-hand distributors of Spanish-Italian metal quote unchanged at 69 dollars per bottle, f.o.b. Continent. Spot, £13 18s.

to £13 18s. 6d. per bottle, ex store.

PEPPER.—Values are level on the week: Lampong, in bond, 2\frac{1}{6}\d.; shipment, August-October, 2\frac{7}{6}\d., c.i.f. Tellicherry, spot, 4\d.; shipment, August-October, 33s., c.i.f. Aleppy, spot, 4\d.; shipment, August-October, 33s. 6\d., c.i.f. White Muntok, in bond 3\frac{1}{6}\d.; shipment, August-October, 3\frac{1}{6}\d., c.i.f. London Terminal Market, Black, June, 2\frac{1}{6}\d.; July, 2\frac{1}{6}\d.; October, 2\frac{2}{3}\d. White, May, 3\frac{1}{6}\d.; Indeed, 2\frac{1}{3}\d. October, 2\frac{2}{3}\d. White, May, 3\frac{1}{6}\d.; Indeed, 2\d. October, 2\frac{2}{3}\d. White, May, 3\frac{1}{6}\d. White, May, 3\frac{1}{6}\d.; Indeed, 2\d. October, 2\frac{2}{3}\d. White, May, 3\frac{1}{6}\d.; Indeed, 2\d. October, 2\frac{2}{3}\d. White, May, 3\frac{1}{6}\d. October, 2\frac{2}{3}\d. White, May, 3\ July,  $3\frac{13}{16}$ d.; October,  $3\frac{7}{8}$ d. per lb.

PIMENTO.—At the further advance the market is firm: spot, 71d.;

shipment, July-August, 61s. 6d. per cwt., c.i.f.

Rubber.—Values again show fair recovery, with more business being done: standard ribbed smoked sheet, spot, 63d.; July, 63d.; August, 64d.; October-December, 61d. per lb.

NIGOL; August, 04d.; October-December, 076d. per ID.

SEEDS.—ANISE.—Spot, duty paid, Spanish, 65s.; Bulgarian, 41s.;
Syrian, 40s. Canary.—Spot, duty paid, Mazagan, 16s. 9d.; Turkish,
15s. 9d.; Plate, 15s. 3d.; Spanish, 21s. to 35s. Caraway.—Dutch, on
spot, 33s., duty paid; 28s. 6d. quoted f.o.b. Holland. Coriander.

Morocco, on spot, is now quoted at 19s., duty paid. New crop for
June-July shipment is firm at 16s. 6d., c.i.f. Cumin.—Spot, Malta,
42s., duty free; Morocco, 41s., duty paid. Fenugreer.—Morocco,
12s. 6d., spot, duty paid. Mustard.—English, 19s. to 27s., according
to quality. to quality.

Senega.—Shipment market is dull and quoted rather easier at

is. 10½d. per lb., c.i.f. for bulk quanities.

SHELLAC.—Market firm at the close: standard TN orange, spot, 37s. to 40s. per cwt.

Tragacanth.—Business continues rather quiet, with quoted values for all qualities of gum unchanged at the prices recorded last week. TURMERIC.—Shipment offers of Madras finger are steady at about 24s. 6d. per cwt., c.i.f., for new crop; spot, 28s. 6d. per cwt., ex

store.

Store. Waxes.—Bees'.—Business in these products continues rather quiet, with quoted values at former figures: Calcutta, bleached, spot, 130s.; shipment, June-July, 120s., c.i.f.; ordinary quality, spot, 95s.; shipment, June-July, 82s. 6d., c.i.f. Conakry, spot, 95s.; shipment, June-July, 82s. 6d., c.i.f. Conakry, spot, 95s.; shipment, July, 82s., c.i.f. Dar-es-Salaam, spot, 100s.; shipment, June-July, 87s., c.i.f. Carnauba.—Fatty, grey, spot, 150s.; afloat, 145s.; shipment, June-July, 145s., c.i.f. Chalky, grey, spot, 150s.; afloat, 145s.; shipment, June-July, 142s., c.i.f. Primeira, spot, good quality, 190s.; afloat, 175s. shipment, June-July, 172s. 6d., c.i.f. Mediana, spot, 180s.; shipment, 170s. per cwt., c.i.f.

#### Essential and Expressed Oils, etc.

The volume of trade again shows a slight improvement and conditions generally are steadier. Anise (Star) is firmer on spot; lavender and lavandin are dearer from the source. Japanese peppermint is quiet but fully steady forward.

Anise (STAR).—The spot market is much firmer, owing to receipt of cable advice from Hong Kong that on further shipment offers can be made as stocks are exhausted. The last offers of tins was at about 2s. 8d. and drums at 2s. 7½d. per lb., c.i.f., and it is stated that fair quantities were booked last week at about those prices. Spot holders are reserved with some withdrawn for the time being. Values are nominal at tins, up to 3s. 9d. and drums up to 3s. 7d. per lb.

Bergamor.—Shipment price for Consortium oil is unchanged at about 14s. 9d. per lb., c.i.f.

CAMPHOR.—Firm on a quiet market: 104s. to 107s. 6d. per cwt. in drums. No shipment offers of Chinese at the moment. 90s. per cwt., c.i.f.

CARAWAY.—Quiet, values steady: Dutch rectified, 7s. 3d. to 7s. 9d.; crude, 6s. 9d. to 7s. per lb., landed and duty paid, as to quantity.

Cassia.—The demand is of little importance: spot, good quality oil, 3s. 3d. in leads; off-quality, about 3s. per lb. Shipment market is lifeless; leads, 2s. 10½d.; drums, about 2s. 9d. per lb., c.i.f.

CINNAMON LEAF.—Fair amount of small spot business: 2s. 9d. to 3s. 3d., as to quantity; shipment for bulk quantities, in drums, continues chean.

CITRONELLA.—Market remains very quiet and at low figures for shipment: Ceylon, spot, drums, 1s. 5d. to 1s. 5½d.; smaller parcels, up to 1s. 9d.; shipment, drums, 1s. 2d. per lb., c.i.f. Java, spot, drums, 1s. 1od. to 1s. 11d.; smaller parcels, up to 2s. 4d.; shipment, drums, about is. 44d. per lb., c.i.f.

Eucalyptus.—Values unchanged, business negligible: Australian, 70 to 75 per cent., tins, 1s. 5½d. to 1s. 6d.; drums, 1s. 5d.; 80 to 85 per cent., drums, 1s. 9d. per lb., landed; higher prices for small lots on spot. Shipment, 70 to 75 per cent., tins, 1s. 3d.; drums, 1s. 2½d.; 80 to 85 per cent., 1s. 6½d. per lb., c.i.f.

GERANIUM.—Shipment offers continue to attract but little business: Bourbon, spot, 12s. to 12s. 4\frac{1}{2}d.; shipment, 12s. 2d. per lb., c.i.f., Algerian, spot, about 13s.; shipment, 12s. 2d. per lb., c.i.f., for good quantities.

Grape-fruit.—More inquiry on spot, with values steady: Californian, 10s. 6d. to 12s. Florida, 10s. 6d. to 11s. 3d. per lb., as to

quantity

LAVENDER.—Reports from the source indicate firm conditions, due to poor crop estimated for the coming season. It is stated that continuous drought has severely damaged plantations. Old oil and lavandin are both quoted 30 and 20 francs dearer, respectively, and new crop oils are expected to show a further advance, due to shortage and high costs of production.

Lemon.—Sicilian oil for shipment has been in quiet demand for this market, but the source reports sales to other destinations are average and the market is steady at 11s. to 11s. 4d. per lb., c.i.f Spot prices vary from 11s. to 11s. 6d. for genuine new oil, with blended oils at cheaper prices: Californian distilled oil available for this market is steady at 6s. 4d. per lb., in small drums, landed. Sicilian, machne-made, 10s. 8d., c.i.f.

Orange.—The spot demand has been moderate with French Guinea ORANGE.—The spot demand has been moderate with French Guinea oil in original drums about 3s. 3d. and repacked in tins and cases 3s. 5d. to 3s. 7d. per lb. ex store; shipment offers at 2s. 7d. per lb., c.i.f., in drums, with no interest. Californian is steady at the recent reduction of 20 cents: spot, one case, 3s. 7½d.; two or more cases, 3s. 5d.; large drums, not quoted; small drums, 3s. 4d. per lb., landed; cold-pressed, 5s. 3d., c.i.f., in cases.

Palmarosa.—Market continues fully steady at 8s. 41d. to 8s. 6d. for original packages: shipment is up to 8s. per lb., c.i.f., with little

PEPPERMINT.—Market has been quiet on spot with the shipment position fully maintained: spot, 4s. 3d. to 4s. 4d. Japanese shippers quote up to August at 4s. 1½d., c.i.f. Some oil afloat is stated to be offering at 4s., c.i.f. American natural oil, in drums, continues firm for shipment at fully 2 dollars to 2 dollars 10 cents per lb., c.i.f.

Rosemary.—A limited spot inquiry, market steady: Spanish oil, about 3s. up to 3s. 7½d. per lb., as to quality and quantity. No definite shipment offers from the source. New crop Tunis oil, to come forward, 2s. 9d. to 3s. per lb., landed, as to quantity.

SPIKE.—A little spot trade at full prices: Spanish oil is steady from 5s. 6d. to 6s. per lb., as to quantity. Blended oils at cheaver prices

cheaper prices.

WORMSEED.—The shipment market is not quite so strong, moderate spot demand: spot, U.S.P. oil, 11s. 4½d. to 11s. 6d.; B.P., about 12s. 3d., as to quantity; shipment, U.S.P., 10s. 10d. per lb., c.i.f., in bulk quantities.





## Correspondence

Correspondents may adopt an assumed name, but must in all cases furnish their real name and address to the Editor.

#### Problems in Advertising

SIR,—I see that one of your correspondents ("Via Media," C. & D., June 18, p. 710) has again raised the perennial topic, but surely he, and everyone else interested in pharmacy, has had a brilliant object lesson during the past fortnight on how to do it. The jubilee of the establishment of a company concern which has used pharmacy as its commercial basis was made the occasion of public celebrations in which a prominent part was taken by members of the House of Lords, of His Majesty's Government and of the House of Commons, by leading lights in the medical profession and by scientists and industrialists of world-wide fame, not forgetting the pastpresident and the secretary of the Pharmaceutical Society. At that function the Minister of Health took the opportunity to direct public attention to the care and skill of qualified chemists who dispense millions of prescriptions annually for 17,000 British doctors. This tribute to pharmacy in general would (not unnaturally in the circumstances) be attributed by the man in the street as applying only to those employed in the establishments of the company concerned. This idea the company's advertising experts were astute enough to augment by large-space follow-up advertisements in leading daily papers asserting that the "Nation's Chemists are 50 years old to-day!" What amazes me is that this restriction of information regarding the functions of pharmacy should be allowed to persist. What can be done so successfully by a concern representing, say, 2,000 registered pharmacists should surely be accomplished for the benefit of the whole craft by means of a carefully co-ordinated advertising scheme sponsored by and directed from official headquarters. Is it not time the truth was rubbed in that British pharmacy is nearly a hundred years old and that there are well over 20,000 other qualified chemists ministering to the nation's needs?

Yours faithfully,

WILLIAM CHALMERS.

Surbiton.

Supplying Fourth Schedule Poisons

SIR,—Reports received from the Society's inspectors recently have shown that in many parts of the country the prohibition of the supply of Fourth Schedule poisons to the public on telephoned prescriptions is being ignored both by doctors and by chemists. Many instances have been reported where large numbers of prescriptions have been telephoned and in some cases have not even been signed subsequently by the practitioner. In the circumstances, the Society has requested the British Medical Association to draw the attention of medical practitioners to the provisions of Rule 12, and I enclose a copy of a letter that has been sent to the "British Medical Journal" on the subject. Members of the Society are reminded that in no circumstances may poisons in the Fourth Schedule to the Poisons Rules be supplied to patients in response to a telephoned request from a medical practitioner, and are urged to bring this information to the notice of practitioners who may still be ignorant of that fact.—Yours faithfully,

Hugh N. Linstead, Secretary, The Pharmaceutical Society of Great Britain.

London, W.C.I.

[A number of instances of non-compliance with an important provision of the Poisons Rules has been brought to the notice of the Pharmaceutical Society by its inspectors under the Pharmacy Acts, and the Society, after consultation with the British Medical Association, finds it necessary to warn both practitioners and chemists that further breaches of the Rule may be followed by prosecutions. The Rule referred to provides that the poisons listed in Schedule 4 of the Poisons Rules may be supplied to the public only on medical prescription. Those in common use are cinchophen, amidopyrin, and the numerous barbiturates. They may be supplied direct to medical practitioners in response to a telephone order, but not to patients on a telephoned prescription. Reports from the

Society's inspectors show that many practitioners are ordering and chemists are supplying these drugs to the public by means of telephoned orders. In these circumstances the Society, as the authority responsible for the administration of the Kule, can no longer acquiesce in non-compliance with its provisions and must shortly bring offenders before the courts. The Society is most reluctant to proceed to extreme measures and, before doing so, wishes to make this appeal to medical practitioners to observe the legal obligations placed upon them. A similar appeal is being made to chemists. Medical men will, perhaps, realise that the pharmacist is placed in a difficult position. To comply with the regulations it is his duty to refuse to supply these drugs on telephoned prescriptions, but he is naturally unwilling to offend a practitioner in his neighbourhood. The abolition of "telephoned prescriptions," though causing inconvenience, need not affect adversely the relationship between depter and phenomenic and alternative and doctor and pharmacist, and I have little doubt that medical practitioners will appreciate the necessity of strict compliance with their legal obligations.]

## Miscellaneous Inquiries

We do not undertake to analyse and report upon proprietary articles nor to publish supposed formulas for them.

J. P. H. (17/6).—ELDER SYRUP.—The most practical method of preparing this would be by mixing concentrated (1-40) elder flower water with syrup. The proportions could be adjusted according to the amount of flavouring required.

J. D. (17/6).—Elementary Chemistry Text-Books.—The following will probably be suitable for your purpose:—Spear's "Junior Inorganic Chemistry," Churchill, 6s. 6d.; Bailey's "First Course of Inorganic Chemistry," University Tutorial Press, 3s. 6d.; Kingzett's "Chemistry of Beginners and Schools," Bailliere, 5s.; Barrett's "Elementary Inorganic Chemistry," Oxford University Press, 4s. 6d.

H. A. B. (17/6).—Low blood pressure.—Owing to the many causes of this condition the patient should seek medical advice. The following comments, however, may be of interest to you: Adrenaline injections and ephedrine by mouth are given sometimes for raising blood pressure and suprarenal cortex extracts have also been used. The patient should have an adequate amount of rest, his dietary should be mixed and contain fresh foods, and he should drink at least three pints of fluid daily. Digitalis is given where the low blood pressure is associated with myocardial weakness, and iron, arsenic and sometimes liver extracts are used as tonics in treating an anæmia which may contribute to the low blood pressure.

## Retrospect of Fifty Years Ago

Reprinted from "The Chemist and Druggist," June 23, 1888

From the "C. & D." Trade Report

Tea.—There is very little business moving either in China or Indian teas, and business in China teas by private contract is practically nil. Tuesday's sales were only 8,968 packages (1,764 boxes), a large proportion being half-chests of useful Soomoo and Pasral, which, selling from 4½d. to 5d., show very good value to buyers and are well worth attention. Commoner Kaisows sold down to 3½d., and a few lots of Moning fetched 3¾d. and 4d. to 9¾d. Oolongs are steady, selling from 8d. for good common, up to 1s. 4¼d. for fine tea; but green teas of all descriptions are slow of sale, and the demand for home trade is very small. The consumption appears to be getting less and less. New season's Newmakes come in slowly, curly-leaf teas being very scarce, and wanted at firmer rates; but Hoyune kinds are very little inquired for. New S. Capers are selling slowly in the country, and some common sorts in this week's sales sold down to 5¾d. and 6½d. The trade generally is waiting for the arrival of the Moyune, with new season's Monings, on Monday; but buyers will probably operate very cautiously, as the future of the market for finer China teas is very much a matter of guesswork.



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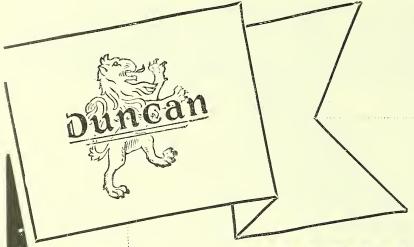
'Acidol'-Pepsin is issued in gr.  $7\frac{1}{2}$  (0.5 g.) tablets in tubes of 10 and cartons of 50.

Two strengths:—No. I. (strong: pepsin 0.1 g. and 'acidol' 0.4 g.) No. II (mild: pepsin 0.2 g. and 'acidol' 0.05 g.)

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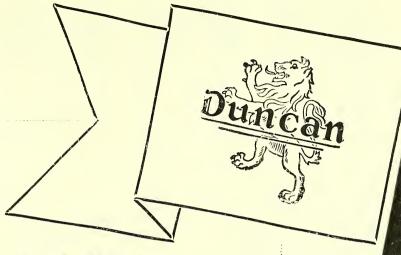
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THE CHEMIST & DRUGGIST DIARY AND YEAR-BOOK, 1936

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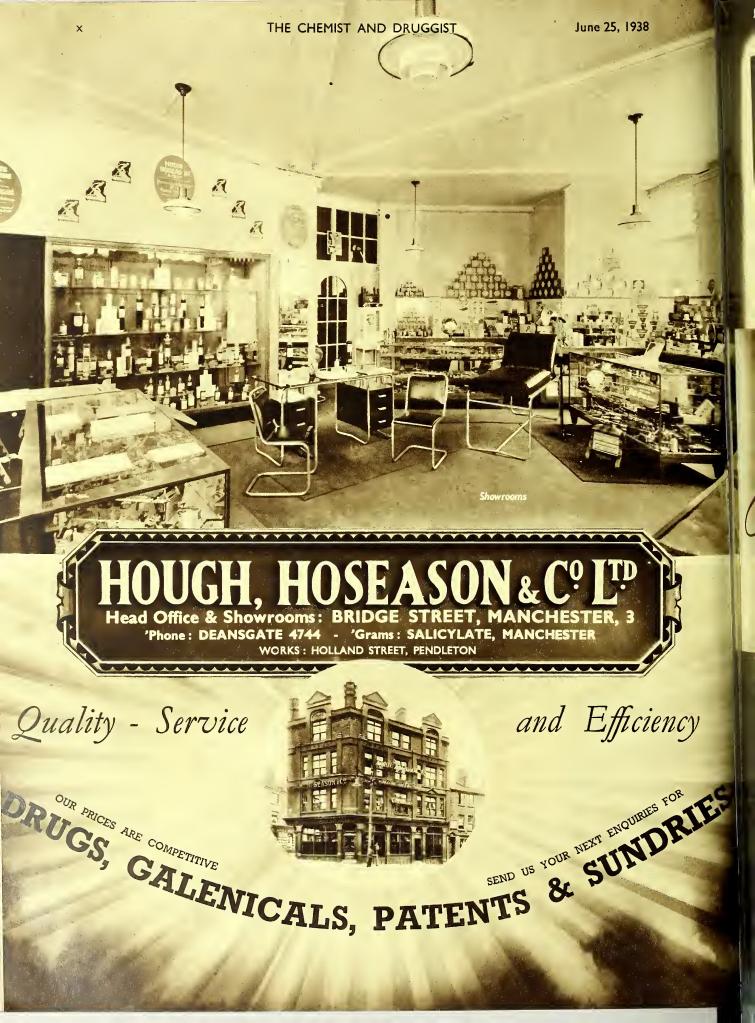
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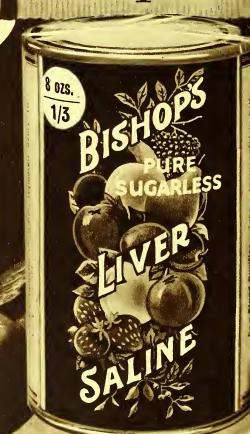
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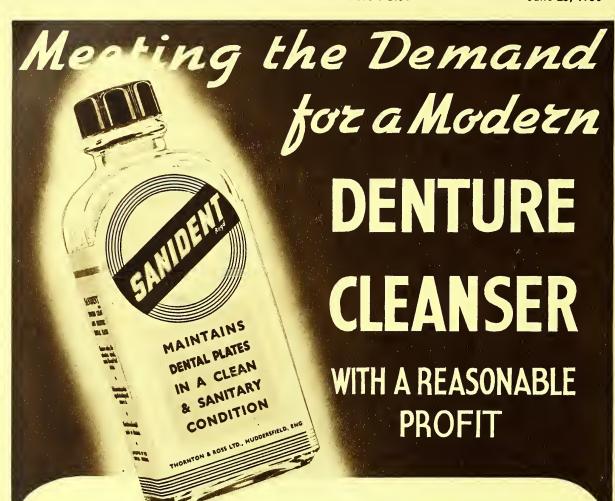
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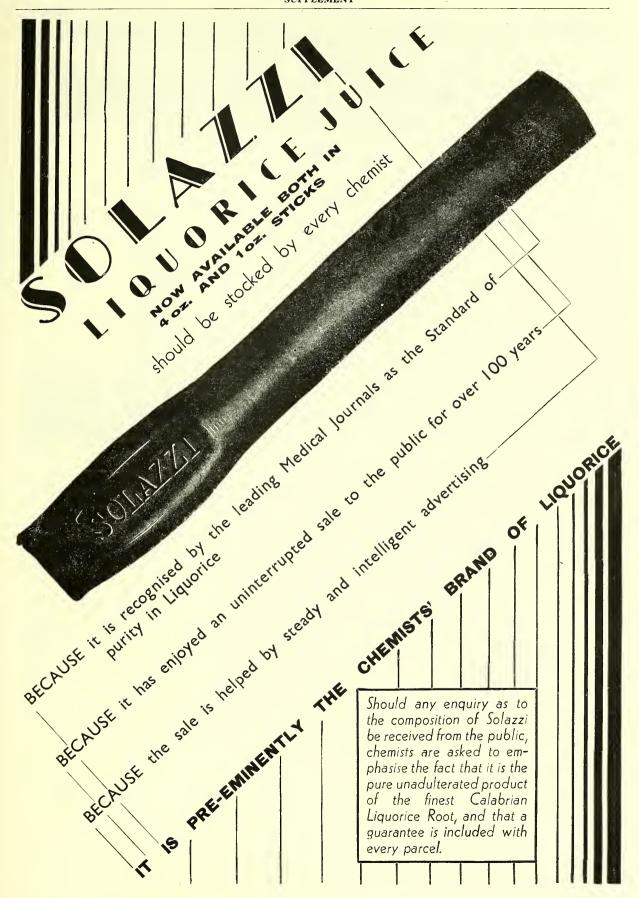


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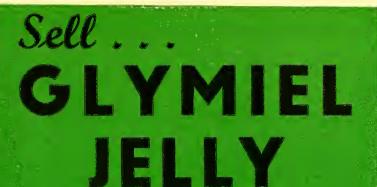
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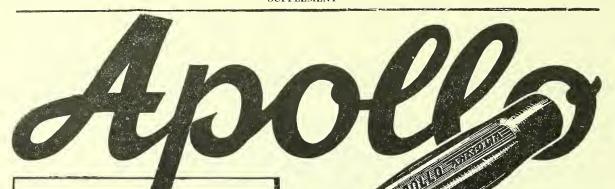
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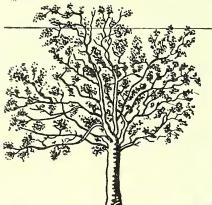
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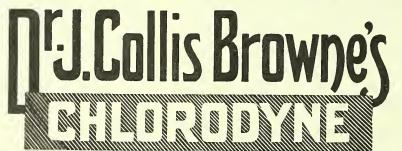
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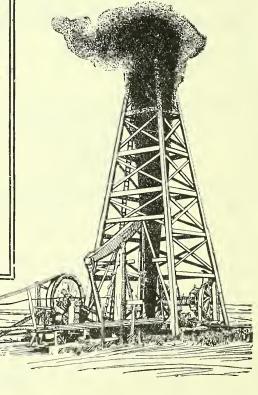
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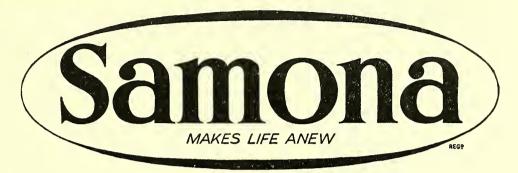
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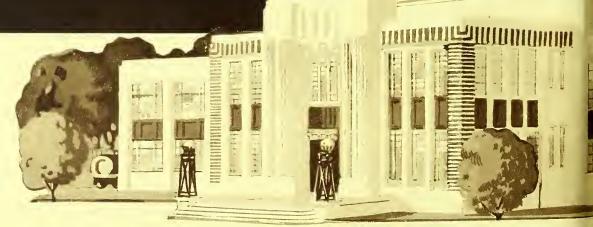


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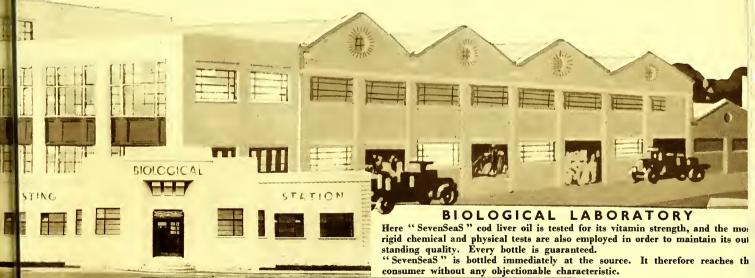
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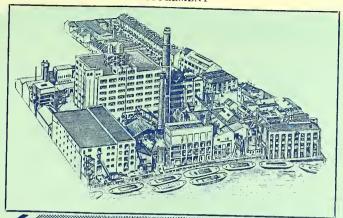
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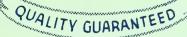
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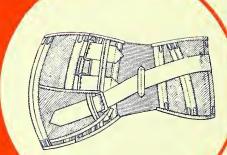


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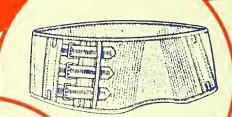
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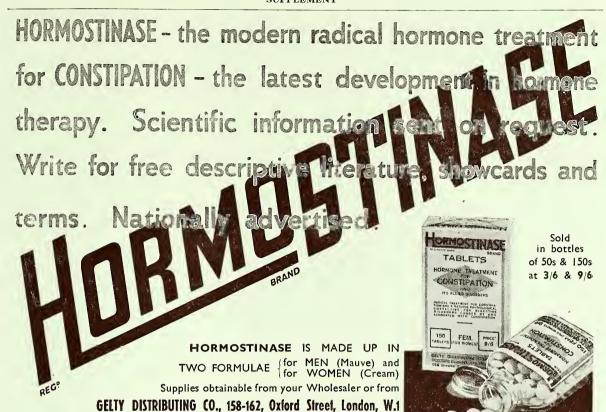


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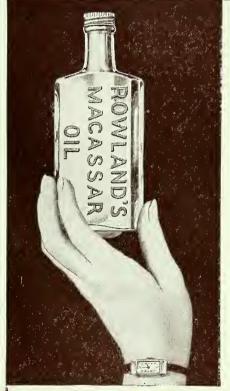
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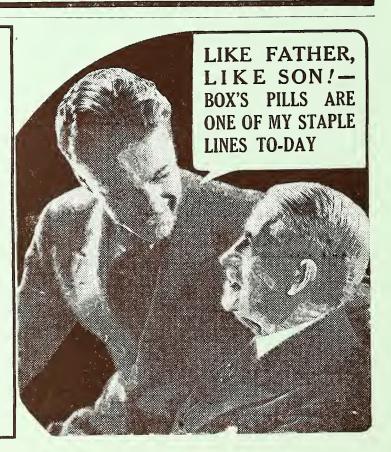
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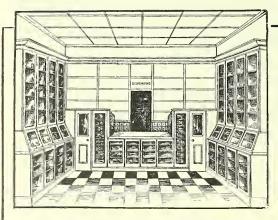
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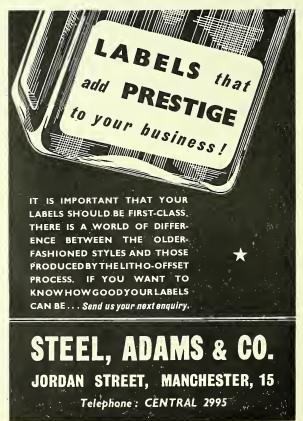
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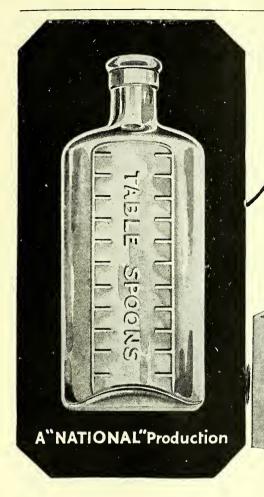
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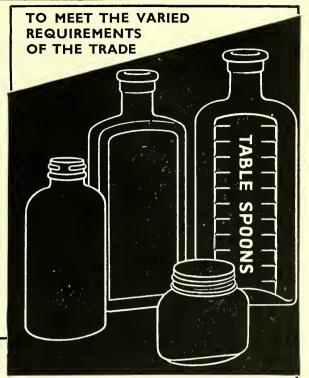
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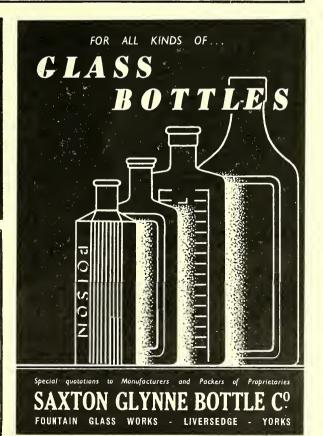
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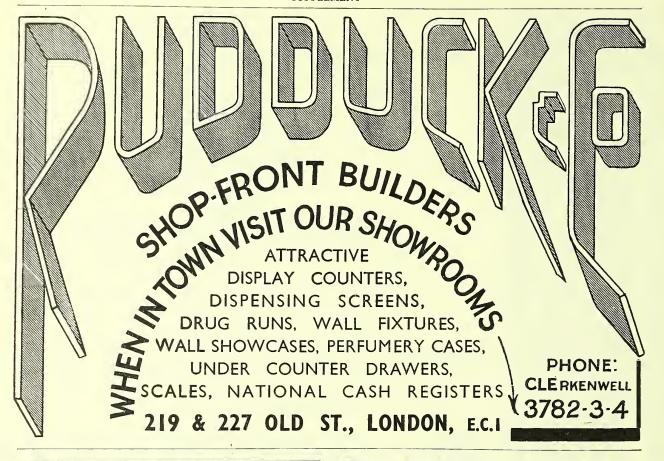
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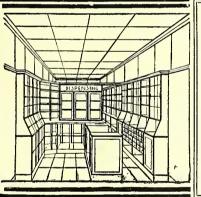
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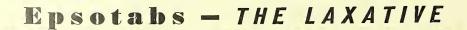
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(C2) LANCS. (SEASIDE).—Good Family and Dispensing Business; turnover for last financial year £3,740; net profit £750; rent £100; excellent private house also for sale; price of business £2,000, including stock £800 and fixtures £200.

(C3) SURREY.—Good profit-earning business with valuable side-line; increasing turnover, now at the rate of about £2,500 per annum; net profit approximately £650; no near opposition; up-to-date flat; 21-year lease; price £1,700, or near offer.

(C4) BERKSHIRE.—Present returns approximately £2,000 per annum under management; good scope with personal attention; reut £100, including small house with garden and garage; lease 21 years; stock estimated at £700; fixtures £250; price £1,250 all-at; owner will if necessary, accept £800 down and the balance by arrangement.

(C5) DORSET.—Old-established, good-class business with living accommodation; turnover for 1035-36, £3,914; 1936-37, £4,194; company opposition pending and owner will accept £250 for goodwill; Arden etc., agencies; scope for increase in several directions.

(C6) CLAPHAM (NEAR).—Exceptional opportunity for enterprising Chemist to acquire spacious lock-up Pharmacy with very extensive frontage; excellent position; now doing at the rate of about £1,800 per annum; for a quick sale owner will accept the very low figure of £950, £400 of which could remain for payment at the rate of £100 per annum; for a quick sale owner will accept the very low figure of £950, £400 of which could remain for payment at the rate of £100 per annum; for a quick sale owner will accept the very low figure of £950 etc. £100 etc. £100 etc. £100 etc. £100 etc.

living accommodation; rent £70; genuine reason for selling; price £850

niving accommodation; rent £70; gentuine reason for selling; price £850 all-at.

(C12) UXBRIDGE (NEAR).—Old-established family business situated in growing and improving district; turnover for 1937/38 financial year, £2,139; gross profit £804; rent £65; lease nearly 21 years to run; to an Owner-Proprietor the business would at present show a net profit of £500-£550 per annum; price approximately £1,500 all-at.

(C13) LONDON, S.W.—Rapidly increasing business occupying prominent position; turnover approximately £2,100 per annum; rent entirely covered by Post Office remuneration; good living accommodation, or lock-up shop only could be taken on lease; scope and opportunities for further substautial development; price £1,600 or reasonably near offer; owner would consider partnership arrangement if preferred.

(C14) ENFIELD.—Good-class Business, with no near opposition; owner must sell immediately as he is waiting to take up a position and is prepared to dispose at a big sacrifice; turnover approximately £1,300 per annum; excellent modern flat; stock and fixtures estimated at £500; price all at for immediate transaction £525.

(C15) HEREFORDSHIRE.—Old-cstablished, middle-class business

at £500; price all at for immediate transaction £525.

(C15) HEREFORDSHIRE.—Old-cstablished, middle-class business with excellent scope under personal proprietorship; present returns average approximately £1,000 per annum; living accommodation with four bedrooms, etc.; reasonable rental and purchase price; open to offer. (C16) LIVERPOOL.—Branch business established over 60 years; turnover approximately £1,500 per annum; rent £65; good scope; price £550-£600 according to value of stock, part of which could remain.

£550-£600 according to value of stock, part of which could remain.

(C17) GRAVESEND.—Modern Pharmacy occupying main-road position; good living accommodation; rapidly increasing turnover, which for 1937-38 amounted to £1,750; net profit £450-£500; excellent scope; no near opposition; stock and fixtures estimated at £900; price all-at £1,000; property also could be purchased if desired, or lease will be granted at a rental of £91 per annum, plus rates about £17.

(C18) BRADFORD.—Branch business with good scope for increase under personal proprietorship; turnover for 1937, £730; net profit £250; living accommodation; value of stock and fixtures accepted for quick sale, and any reasonable offer cousidered.

(C19) BUCKS.—Middle- and Working-class Business with good D. and P.; turnover for 1936-37, £1,162; premises occupy corner position on main road; rent £75; no near opposition; goodwill and fixtures £450; stock at valuation (estimated at £260).

(C20) BOURNEMOUTH.—Cash Business; very easily conducted; turnover for 1937, £1,264; net profit £317; good living accommodation with garage; rent £110; rates £20; price £850, including stock £300, and fixtures; which cost initially £500.

Valuations for transfer, probate, income tax, etc., promptly executed at economical rates

### THE ASSOCIATION OF MANUFACTURING CHEMISTS,

(Business Agency, Transfer & Valuation Department) KIMBERLEY HOUSE, and at EXCHANGE CHAMBERS, Holborn Viaduct, LONDON, E.C.1 2 Bixteth St., LIVERPOOL. PARKIN S. BOOTH, Valuer. Tels.: CITY 3691 (4 lines). VALUATIONS. SALES OF BUSINESSES. STOCKTAKINGS.

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6s. for 50 words or less; 6d. for every additional 10 words or less, prepaid. (Box No., Is. extra.)

DEXLEYHEATH DISTRICT.—Well-established business, double-fronted corner premises; growing district; rent £140 per annum; excellent living accommodation; lease 19 years. For further particulars apply Parkin S. Booth, Kimberley House, Holborn Viaduct, London, E.C.1.

CAMDEN TOWN (near).—Neglected lock-up; approximating £15 weekly and £7·N.H.I. monthly; rent £1 a-week; agreement or lease; stock low, approximately £96; terms exceptional for spot cash or vendors prepared to accept (from Qualified man) substantial deposit and balance on terms. Apply D/c, 213/23, Office of this Paper.

ORNWALL.—Attractive established seaside Chemist's and Optician's Business, showing excellent profits, together with a sub-Post Office, salary £180 per annum; good living accommodation; splendid position; part purchase can remain. Particulars, Champion, Agents, Camborne.

DERBY.—Light Retail Business for sale, corner position, good district; takings £20.£22 per week; easily worked; good N.H.I.; opening for Optics; living accommodation. 328/924, Office of this Paper.

LEITH.—Old-established business in Vendor's hands 54 years for sale owing to retirement. Turnover £1,005, Accountant's figures. Double-fronted shop to be rented at £65 per annum. Stock £350. Fixtures and goodwill best offer.

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Harold Annis, M.P.S. General Manager

Telephone: Blackfriars 4451/2

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EICESTER.—Working-class business; turnover £1,456, gross profits £535, stock £400, fixtures £200; good photographic sales, Kodak, Selo, etc.; living accommodation: 2 rooms and 5 bedrooms; shop worked single handed; purchase price £900 or nearest offer; good reason for selling; no agents. 210/4, Office of this Paper.

IVERPOOL.—Busy tram thoroughfare, middle and working-class; Cash trade; N.H.I. Dispensing and Photographic, Rexall; Developing and Printing in height of season £20-£25 per week; modern shop and fittings, double fronted, non-residential; lease if required; rent £120 per annum; average turnover last three years £2,450; price £1,400. 212/26, Office of this Paper.

L ONDON, W.1.—Excellent opportunity occurs to purchase nicely-fitted Pharmacy near Baker Street and Oxford Street; established over 50 years; certified returns last year £2,090; good stock; low rent; good-class trade; every investigation invited; price £1,150. Apply Chemist, 42 Oakington Avenue, Wembley Park, Middx.

L ONDON, W.—Well-established, large double-fronted lock-up shop; good Fittings; clean, up-to-date Stock; middle-class trade, with Optics and Photographic; average turnover last ten years £2,500; Auditor's figures; rent £150; long lease; owner has other interests; this business has always been under management, proprietor working personally could greatly increase turnover; £1,500; bankers' references. P.C.B. 286/35, Office of this Paper.

LONDON.—Drug Store, recently run as Chemist; long lease; net profits this year £360, auditor's figures; same hands many years; price £450 for quick sale; genuine; ill-health and retirement only cause of sale; no agents; buyers with cash only. 213/18, Office of this Paper.

MANCHESTER.—Genuine Pharmacy, thickly-populated district served by several doctors; lock-up shop; suit young Pharmacist-Optician or Lady Pharmacist; vendor, elderly, wishes to retire; turnover £1,100; scope for more; nicely fitted, good stock; price £675, or nearest. Particulars from N. Cooke, Chemist's Stocktaker, 60 Hawthorn Road, Levenshulme, Manchester.

MANCHESTER.—Main road position, Chemist-Optician as going concern; Kodak agency and one other profitable department (sole agent for area); small takings at present, but scope for improvement on development of building already started; busy corner site; everything clean and modern; sacrifice, £230; genuine buyers only. 211/7, Office of this Paper.

NORTH LONDON.—Cash Drug Store; thickly populated district; definite scope for Chemist; no opposition; Selo Agency; good D. & P.; last year's turnover £850, still increasing; 23½ years' lease at £50 per annum; inclusive cash price £375. 212/15, Office of this Paper.

NORTH LONDON.—Lock-up business; main road; near railway station; rent £65 inclusive; 18 years' lease to run; turnover £1,150; good profits; panel increasing consistently; excellent Photographic connexion; stock and fixtures worth over £350; will accept £400 or nearest offer; must sell immediately; owner leaving London. 212/28 Office of this Paper.

SOUTHPORT.—Excellent opportunity occurs to purchase beautifully fitted Pharmacy, with new Optical department, fitted by Levers, of London; situated in a main street; good specialities, private and N.H.I. Dispensing, Kodak, Ucal, and Selo Agencies; good scope for Optics; sound reasons for disposal. Chemist, 125 Eastbank Street, Southport.

COUTH WEST LANCASHIRE.—Old-established Family Business in the centre of the shopping area, occupying a prominent position, in a good working-class district, under Qualified Manager; neglected, and can be greatly increased under owner occupier; good reasons for disposal, owner retiring from Pharmacy; rent 265, plus rates, approximately £35 per annum, lease; price £275. Further particulars apply 213/14, Office of this Paper.

BUSINESS (at present small) for Sale; attractive shop and excellent position unopposed, in mixed-class residential district Essex Coast resort; some accommodation and conveniences, etc.; low inclusive rent; for health and other reasons, owner will accept small inclusive sum. Plezse write, in first instance, BM/HPGV, London, W.C.1.

CHEMIST'S Business for Sale; East London; turnover £1,200; can easily be increased; residential area, no opposition; a magnificent corner position; no goodwill asked; must effect a quick sale; £400 cash; no triflers. 214/340, Office of this Paper.

PRUG STORE, in rapidly growing district, North London; wonderful opportunity for Qualified Chemist; no near opposition; good Photographic; long lease; reasonable offer accepted for quick sale. Apply 214/33, Office of this Paper.

MUST sell, through death, any reasonable offer accepted, mainroad shop, Dispensing and Photographic Chemist; good stock; large block of flats opposite, tram and bus stop opposite; lease 10 years; four rooms above shop. 212/7, Office of this Paper.

PRESCRIBING personal business, heart of West End; old established. 212/19, Office of this Paper.

PROGRESSIVE Chemist Business for sale; heavy N.H.I., Toilet and Photo, Rexall and Trade, D. and P. connexion; very low overhead expenses; inspection any time; genuine reason for disposal; double-fronted corner shop, main road. Apply, Leach & Hargreaves, Chartered Accountants, Darwen. Certified figures available.

450.—A medium-class Drug Store, with Photographic agency, also a Hairdressing Saloon at rear of shop; would suit a Qualified person or Unqualified; no near opposition; nearest chemist about three-quarters of a mile; good reason for selling. Write 213/24, Office of this Paper.

### **BUSINESSES WANTED**

REQUIRED immediately, several good businesses in the London area, preferably City, West End or inner suburbs, but not essential; minimum turnover £2,500 per annum, but smaller propositions considered if possessing definite scope for increase to that figure or above; negotiations cau be entered into forthwith; prospective vendors are invited to communicate as soon as possible under assurance of confidence with Ernest J. George, & Co., 329 High Holborn, London, W.C.1.

### PREMISES TO LET

6s. for 50 words or less; 6d. for every additional 10 words or less, prepaid. (Box No., 1s. extra.)

LFORD, ESSEX.—Fine opening for Chemist in sound trading position, at very moderate rent. Apply P. E. Brand, Ltd., 345 Eastern Avenue, Ilford, Essex.

CHEMIST Shop to Let in centre of good parade in thickly populated part of Walthamstow; living accommodation and space for garage; no opposition; rent £78 per annum, exclusive; no premium. Apply G. Ernest Clarke & Co., 201, 203 Hoe Street, Walthamstow, E.17. Telephone: WALthamstow 0029.

CHEMIST'S Opportunity; spacious Shop, one of four, next to Doctor's house, in main road, Byfleet, Surrey; residential and fast-growing district; near Brooklands and large works; rear entrance; room for garage; all services; full-term lease, £90 per annum exclusive. Apply Ely, Corner House Cafe (adjoining), High Road, Byfleet, Surrey.

EXCELLENT opportunity for Chemist in new building, central position; fine frontage; L.C.C. and private flats; market; no opposition; very reasonable rent to reliable occupier. For further particulars, arrangements to view, etc., apply G. Pick, 43 Clissold Road, N.16.

CO5 -New Shop, main road, nice part of Surrey, 20 miles London, growing population; very little competition; modern living accommodation; garden, garage space; no goodwill to buy, never been opened; owner, disappointed by relative, offers ingoing at only £95, including costs of lease, new fixtures, fittings, lunes and plumbing; an opportunity often sought but seldom seen. Write 528/926, Office of this Paper.

### **APARTMENTS**

THE HAMPDEN RESIDENTIAL CLUB

TOR GENTLEMEN, Hampden Street, N.W.1. Close to King's Cross and Euston. 300 Bedrooms, 15s. to 22s. 6d. per week, including bath, attendance and boot cleaning. All meals à la carte in dining room. Moderate tariff. Large Club Rooms, Library, Billiards Room, Reading Room and Study for Students. Illustrated Prospectus from Secretary. Euston 2244/5.

### **BUSINESS OPPORTUNITIES**

YOUNG man offered position as Sales Manager and London Wholesalers' Representative under agreement by progressive, established private company marketing own branded products, and Sales Agents for well-known firms; salary £250 and commission; investment required, £350 in shares (secured); exceptional prospects for right man. Write fully, 206/44, Office of this Paper.

### COMPANY REGISTRATION

I DO not know what to add to what I have been saying consistently in this space for more than 25 years about the advantages of trading on safety lines as a Private Limited Company of two or more persons. If this interests you, please write for my inclusive quotation and full particulars.

A. B. SLACK,

721 PRINCESS ROAD, MANCHESTER, 20.

### **PARTNERSHIPS**

CONTINENTAL Firm, manufacturing Concentrated Perfumery Oils (flower and fancy oils for Colognes, lotions) for sale to Retailers, Chemists, Druggists, Beauty Parlours, wants English partners; first-class formulas on hand; success guaranteed. For any further details apply to 328/927, Office of this Paper.

### TRADE MARKS FOR SALE

FOR SALE, the following three Trade Marks: LYNO, ANTIKENE, NITENE; all registered for another 12 years; Marks registered in Class 3 for use in Medicines; cheap offers for three or separate offers will be accepted. Apply 211/2, Office of this Paper.

### **AGENCIES**

### New and successful CONTINENTAL PRODUCTS **Especially PATENT MEDICINES**

are available for the English market. Opportunity of manufacturing in this country. Manufacturers or wholesalers with strong sales organisation and capital for advertising are invited to communicate with Box 328/918, Office of this Paper.

DUTCH EAST INDIES.—Wholesale Druggists in Holland, exporting for many years already to these colonies, and now establishing a branch in Java, wish to take up Agencies for the sale of Proprietary Goods to Chemists and Druggists. Mark letters "Export Dutch East Indies," c/o 210/5, Office of this

MANUFACTURING Chemists, with organisation covering the whole of Australia, seek additional lines for Chemicals, Drugs, Sundries, etc.; advertisers have a well-equipped factory and would be prepared to manufacture under licence; excellent opportunity of obtaining new business in Australian market through vigorous and progressive company; representative is in London. P.C.B. 286/18, Office of this Paper.

OLD-ESTABLISHED firm of Manufacturers offering own proprietaries to high-class Hairdressers, Chemists and Stores, seeks monopoly of exclusive articles. Manufacturer desires to establish in similar trades in Great Britain and Australasia. Write in first instance, giving full particulars, to Box 132, 8 Serle Street, W.C.2.

ONE of the Directors of Fairbairn, Wright, Ltd., general merchants, with branches throughout New Zealand, is in England and would consider Agencies for suitable British products. Communicate with Laughland, Mackay & Co., Ltd., Candlewick House, London, E.C.4.

### EDUCATIONAL

WELL-PAID POSITIONS have been offered to all Graduated Students with personality of the National School of Chiropody—the largest, most successful, most expertly staffed and best equipped school in the world, with exceptional practical training in Foot Hospitals treating over 100,000 patients annually. Full qualification in six months through complete intensive course. Next term commencing shortly. Write for Prospectus to the Secretary (Dept. 90), National School of Chiropody, 133 Upper Street, London, N.1.

### **APPOINTMENTS**

CROWN AGENTS FOR THE COLONIES. COLONIAL GOVERNMENT APPOINTMENTS.

Applications from Qualified Candidates are invited for the following post:—

the following post:—

GECRETARY-DISPENSER (female) required by the Government of Tanganyika Territory for the Medical Department for one year in the first instance; salary £240-£18-£300 a year. The post is not pensionable, but the introduction of a Provident Fund Scheme is under consideration. Free passage and leave on full salary. Candidates (age £5-35), unmarried, must be members of the Pharmaceutical Society of Great Britain and have had considerable dispensing experience. Preference will be given to those who are competent stenographers and who have had has pital experience, including office routine and storekeeping. Apply at once by letter, stating age and full particulars of qualifications and experience, and mentioning this paper to the Crown Agents for the Colonics, 4 Millbank, London, S.W.1, quoting M/5896.

### APPRENTICES

THERE will shortly be a Vacancy for an Apprentice in good-class Dispensing Pharmacy in Bournemonth; excellent ex-perience and congenial conditions. "Ph.C.," 328/921, Office of this Paper.

### SITUATIONS OPEN

6s. for 40 words or less; 6d. for every additional 10 words or less, prepaid. (Box No., Is. extra.)

BOURNEMOUTH.—Young Qualified Assistant (male) required; permanency; please state age, height, experience and salary required, with photo, in first letter, H. Quincey, Ph.C., 821 Christchurch Road, Boscombe, Bournemouth.

BRISTOL.—Qualified Assistant, as Manager for branch; also an Unqualified Junior Assistant. Apply, with full particulars, stating salary required, 328/923, Office of this Paper.

PRISTOL DISTRICT.—Wanted immediately, Qualified Assistant (lady or gentleman) for a country Pharmacy. Full particulars, with photo, to Evans' Pharmacy, Ltd., Paulton, Nr. Bristol.

 $E^{\rm SSEX.-Qualified\ Manager\ required\ for\ small\ country\ branch\ in\ Thames\ estuary;\ living\ accommodation\ available;\ snit\ active\ middle-aged\ man\ able\ to\ keep\ up\ returus.\ Write\ 329/943,\ Office\ of\ this\ Paper.$ 

HACKNEY.—Wanted at once, Qualified lady or gentleman; easy post; permanency or locum. 213/7, Office of this Paper.

H AMPSHIRE.—Juuior Qualified Manager required; promotion later to suitable man. Write, giving details, to 329/945, Office of this Paper.

JERSEY.—Unqualified Assistant wanted for the season; possible permanency; must be knowledge of Photograph, salary, enclose photograph and references, Roberts, Chemist. Jersey.

KENSINGTON.—Opening in high-class Family and Dispensing Pharmacy for intelligent girl or youth to acquire a practical training; nominal initial salary. State age, sex and particulars in own handwriting to 213/22, Office of this Paper.

LEICESTERSHIRE.—Pharmacist required as manager for good-class country business; permanency for conscientious and energetic man. Write, giving full particulars, to 329/941, Office of this Paper.

L ONDON AND EASTBOURNE.—Commencing July 4; Lady or Gentleman, Qualified (25-35), for London; Unqualified (21-25) for season, Eastbourne; smart, well spoken, experienced good-class modern Pharmacy. Apply, giving full particulars age, height, experience, salary required; enclose photo, Cofman's Pharmacy, 41 Hart Street, London, W.C.

L ONDON, N.E.—Qualified male required for good-class Pharmacy; comfortable and permanent situation for good all-round man; also Locum, Qualified, from July 4. 214/44, Office of this

L ONDON, W.1.—Qualified Assistant (male) for high-class Retail and Dispensing business. Apply, with full particulars, stating age, height, previous experience and salary required, 214/28, Office of this Paper.

I ONDON, W.1.—Wanted, Qualified Assistant (male) for Dispensing business near Harley Street; permanency. Please apply, giving full particulars of experience, salary required and when disengaged, 213/16, Office of this Paper.

MANCHESTER.—Qualified Lady Chemist required for high-class Pharmacy; good Dispeuser and interested in Toilet trade; permanency. Write, giving particulars, to 328/938, Office of this Paper.

MANCHESTER.—Smart, Unqualified Assistant, for good-class Pharmacy; capable Dispenser, Counterman and Window-dresser (age 25 to 30). Apply, stating age, wage, experience and references, to P. Hogley, 56 Wilmslow Road, Withington, Manchester 20.

NORTHAMPTON.—Young Lady, Qualified Chemist, required immediately for busy Chemist's shop; permanent appointment. Write 328/940, Office of this Paper.

NORTH LONDON.—Young Qualified Assistant required for early in July, lady or gentleman. Please reply, stating age, salary required, etc., 214/48, Office of this Paper.

NORTH WALES.—Welsh-speaking Manager, Qualified, immediately. State age, experience and full particulars to L. W. Jones, Chemist, Amlwch, North Wales.

SOUTH COAST.—Assistant required, July-August-September; live in. State salary required, references to Brown, Chemist, Hayling Island.

SOUTH OF ENGLAND.—Unqualified Assistant required for holiday and seasonal duties during the season; immediate appointment; view permanency. Write 329/946, Office of this Paper.

OUTH-EAST COAST.—Capable Unqualified Assistant, male, required; accustomed to good-class Dispensing and Counterwork. Apply, giving full particulars of experience, age, height and salary required, 213/15, Office of this Paper.

CTOCKPORT.—Qualified Senior wanted in few weeks' time for good-class business; must be good Salesman and Window-dresser. State age, experience, salary required, etc., 213/210, Office of this Paper.

TAUNTON AND SOMERSET HOSPITAL (132 beds).—Lady Dispenser required end of August; M.P.S.; a knowledge of buying is desirable; Dispensary boy will be provided; salary, £175 per annum; Federated Superannuation Schieme in force. Applications, stating age and experience, with copies of not more than three recent testimonials, to F. J. J. Stacey, Secretary.

WEST END.—Qualified Assistant required for good-class Pharmacy; experience in West End trade. Send full particulars, salary required and when disengaged, to Curtis, 79 Baker Street, London, W.1.

WEST HARTLEPOOL.—Junior Qualified Chemist (Male or Female), required for British Pharmacy; permanency to suitable applicant. Write 328/939, Office of this Paper.

A SCOTTS PHARMACIES (1933), LIMITED, require the services of young Qualified Men as Branch Managers, also Qualified Locums. Phone: WEMbley 2113 for an appointment.

DISPENSER required (under 30), with some Counter experience; permanency. Apply, with full particulars as to age, height, references, salary required, and enclose photograph, to A. Procter & Son, Ltd., 6 Station Parade, Eastbourne.

RLDERLY M.P.S. required for S.E.1 London; light duties; easy post; no duties after 1 p.m. Thursdays; no Sunday duties. State particulars and salary (which must be moderate). Apply by letter only to Occupier, 151 Perry Hill, Catford, S.E.6.

JUNIOR or Improver wanted; must have Dispensing and Windowdressing experience; state age and salary required. Butcher & Simmons, 329 Chapel Street, Salford, Lancs.

L ADY Assistant required shortly, Qualified preferred but not essential if really capable; N.H.I. Dispensing and some Window-dressing. Apply, giving full particulars age, experience and salary required, H. S. Jarvis, 89-91 Whitehorse Road, W. Croydon, Surrey.

LADY Assistant wanted, Unqualified, for Stock-keeping and Counter work; state experience, age, height, and salary required; enclose photo. T. G. Stewart, Chemist, Bracknell, Berks.

LADY Counter Assistant required; experience with surgical appliance fitting an advantage. Send full particulars to J. J. Thomas & Son, 54 Drake Street, Rochdale.

MANAGER (Lady or Gentleman), young or old, for Pharmacy; S.E. London working-class district; wages £4 10s. Apply Head Office, 283 Walworth Road, S.E.17.

PERFUMERY, smart Saleswoman required, as first-hand; must be thoroughly conversant with all cosmetics. Apply between 9.30 and 12.30 to Staff Manager, John Barker & Co., Ltd., 13, Young Street, W.8.

QUALIFIED Assistant for good-class business in London area; one requiring light duties and easy hours could be accommodated; must be experienced and active and thoroughly trustworthy; comfortable permanency to right man; state age, experience and whether free for interview, London. 212/3, Office of this Paper.

QUALIFIED Assistant (M.P.S.) wanted immediately. Applications stating age, qualifications, evperience and salary, names of two references to be sent to Doncaster Co-operative Society, Ltd., 1 John Street, Doncaster, by June 27. Envelopes to be endorsed "Chemist." Convassing members of the Management Committee will be a disqualification.

QUALIFIED Assistant required for business in Midlands, Dispensing, Counter, Window-dressing; must be keen Salesman; energetic and courteous; good Prescriber; salary £4 per week, progressive; state full particulars, references, with photo if possible. 213/13, Office of this Paper.

QUALIFIED Gentleman, young, recently Qualified would suit (if awaiting result examination temporary position available); applicant must be of good address, accustomed high-class business and possess ability at Sales Counter; interview essential. State age, height and full experience and when available. Matthews & Son, 722 High Road, Leytonstone.

QUALIFIED Lady Dispenser wanted; part-time appointment for Doctor's practice in Nottingham. 211/3, Office of this Paper.

QUALIFIED male Assistant to take charge of Dispensing. State experience, along with other particulars, to J. J. Thomas & Son, 54 Drake Street, Rochdale.

UALIFIED man for small branch, single-handed; light Retail and N.H.I.; please state age, salary required and references, which must be recent. "Kent," 213/6, Office of this Paper.

UALIFIED Pharmacist (part-time), required at Bucks Mental Hospital, Stone, Aylesbury; three to four hours' work, six days a week; would share with practitioner or pharmacist in district; salary £104 per annum; dinner and tea provided; pensionable. Applications with uames of two references to reach the Medical Superinteudent not later than July 1, 1938.

 $R^{\rm EQUIRED}$  immediately, Assistant, experienced; light duties; part-time. Apply, W. Hairsine, Ltd., 52 Wardour Street, W.1.

REQUIRED.—Qualified Chemist; good Dispenser and accustomed to Counter; reliable and capable of taking charge. State salary and give usual particulars; interview. Devons Drug Stores, 14 Devons Road, E.3.

CEASON Assistants required for immediate engagement, July to September, for good-class businesses with photographics; applicants must be good Salesmen, courteous in manner, competent and undeniably trustworthy. Kindly state full particulars, age, height, salary required, married or single, previous experience, etc., and enclose photo (returnable) to D. T. Evans, Ltd., Chemists and Opticians, Margate.

TIMOTHY WHITES & TAYLORS have several vacancies for Unqualified Assistants in South; commence in relief capacity; permanent appointments later if suitable. Apply to Retail Staff Manager, 70 Vauxhall Bridge Road, S.W.1.

TIMOTHY WHITES & TAYLORS require Qualified Managers for branches iu South of England; energetic men capable of stock and staff control desired; permanencies. Apply, giving particulars of past experience to Retail Staff Manager, 70 Vauxhall Bridge Road, London, S.W.1.

UNQUALIFIED Assistant, of good appearance and address, wanted for high-class business; South Manchester. Send full particulars of experience, height, etc., and salary required. 213/21, Office of this Paper.

UNQUALIFIED lady Assistant; state age, height, experience, sulary required, references, enclose snapshot if possible (returned). Apply Dyson, 360 Upper Richmond Road, East Sheen, S.W.14.

UNQUALIFIED Junior Assistant, male; experienced in Dispensing and Counter. Send full particulars, age, height, experience and salary required, Crawford, Chemist, Horley, Surrey.

Wanted, Assistant, Qualified, lady or gentleman Pharmacist; easy berth; no Sunday; London. Apply, stating wages, etc., must be moderate, 213/180, Office of this Paper.

### PHOTOGRAPHS, TESTIMONIALS, &c.

When replying to advertisements in this section applicants are strongly advised not to send (unless specially requested) ORIGINAL TESTIMONIALS or VALUABLE PHOTOGRAPHS. Many of these announcements produce an exceptionally large response and, as can be readily understood, the task of returning photographs, testimonials, &c., is one of some difficulty.

 $\begin{array}{c} WANTED.-Capable \ Qualified \ Branch \ Manager, \ Glasgow \ area. \\ Write, \ stating \ age, \ experience \ and \ salary \ required. \ Applications \ not \ answered \ seven \ days \ respectfully \ declined. \ Envelopes \ to \ be \ endorsed ``B/M'' \ and \ addressed to \ S.C.W.S., \ Retail \ Drug \ Department, \ 187 \ Bogmoor \ Road, \ Shieldhall, \ Glasgow. \end{array}$ 

WANTED shortly, Lady Dispenser-Book-keeper for mixed practice in pleasant town in Devon; central surgery; no Panel Dispensing; salary £3 a week, with usual working hours and holidays. Reply, stating age and experience, to 211/6, Office of this Paper.

WANTED.—Unqualified Assistant, either sex, young preferred; no Sunday or holiday duty. State age, salary required, etc., W. E. Barker, Chemist and Optician, Burnham, Bucks.

YOUNG lady or gentleman M.P.S. required; season or permanent appointment; East Coast seaside resort. Apply with particulars, salary required and photograph, 212/17, Office of this Paper.

 $Y^{OUNG} \ \, \text{Qualified Manager, also Qualified Lady, required immediately; payment by results to hard workers; these positions offer scope and permanencies.} \ \, 214/34, \, \text{Office of this Paper.}$ 

YOUNG Unqualified Assistant required immediately; reliable Dispenser and good Counter Manner; knowledge of good-class Toilets and Photography; permanency. Call or write, giving age, experience and salary required, Ekins & Fisher, 91 St. Albans Road, Hatfield.

### VACANCIES FOR LOCUMS

BRIGHTON.—Junior or Improver wanted at once till end of September or end of year; all particulars in first letter to 211/1, Office of this Paper.

EAST COAST.—Unqualified Juuior Assistant (male), required for July and August; must be of good appearance and used to a quick counter trade, with some knowledge of Photography. Apply, giving particulars, age, experience, copies of last two references, sglary required. Applications not answered in 7 days respectfully declined. 211/4, Office of this Paper.

LONDON WEST.—Young Qualified Man required for relief duties; view permanent management later; immediate vacancy; previous West Eud experience not essential. Write 329/942, Office of this Paper.

NORTH OF ENGLAND.—Chemist required for holiday duties; permanency later if satisfactory. Write 328/937, Office of this Paper.

LOCUM (male), July 18 to September 24; quick and accurate Dispenser; high-class Pharmacy, Photographic experience essential; interview preferred or send photo, recent references and full particulars; state salary expected. F. G. Curtis & Son, 94 Sandgate Road, Folkestone.

L OCUM (male) required for three consecutive weeks during August; Qualification not essential; would suit student. Apply, with full particulars, to Evans & Brown, Chemists, 119 Brighton Road, Coulsdon, Surrey. Telephone: Uplands 2030.

L OCUM, Qualified, lady or gentleman, August 8 to 20 inclusive; pleasantly situated Pharmacy; Dispenser and lady Assistant. C. H. Belcher, 74 High Street, Caterham-on-the-Hill, Surrey.

LOCUM, Qualified, required for two or three weeks from August 29. State salary required, references, etc., Dobson, Chemist, Heath Road, Hounslow. 'Phone: Hounslow 1948.

OCUM required for one week commencing July 18. Usual particulars to Sparrow, Chemist, Bridgnorth, Shropshire.

UALIFIED Chemist required for relief duties in London; working-class district; good permanency to suitably experienced man. Write 329/944, Office of this Paper.

UALIFIED lady or gentleman, as locum, from August 13 to September 17 (or any part of this period), for S.E. and E.C. London. Please apply, full particulars, to Bewells, Ltd., 19/21 Pitfield Street, N.I.

QUALIFIED LOCUM (male) wanted, July 18-August 13; terms, etc., Baker, Chemist, High Street, Lewes.

Wanted, in West End Pharmacy, Locum, from noon to 1 p.m. on Mondays to Fridays inclusive, July 4 to 8 and 11 to 15 inclusive. Reply, stating terms, to 328/920, Office of this Paper.

WANTED.—Qualified Locum, August 13 to 26 or thereahouts; active; absolutely trustworthy; usual references. Apply J. Moorhouse, Denaby Main, Near Doncaster, Yorks.

### WHOLESALE

CASH Register Salesmen required, to handle well-tried British Register in growing demand, at competitive prices. Experienced men with own car, prepared to work on liberal expenses and commission basis, should apply to G. H. Gledhill & Sons, Ltd., Trinity Works, Halifax.

MEDICAL Representative required for Propaganda work in London and provinces, calling on Medical Profession and Trade; must be Qualified Chemist, but previous Travelling experience not essential. Apply in writing to 328/917, Office of this Paper.

PEQUIRED by old-established company of Veterinary Medicines Manufacturers, Qualified Chemist for country works; vacancy in August. Write fully, stating age, experience and salary required, 328/925, Office of this Paper.

VACANCY in Manufacturing concern for Chemist or other technical person familiar with the manufacture and handling of Mercury Products, both industrial and pharmaceutical. Write 205/22, Office of this Paper.

WANTED by a leading Cosmetic Manufacturing company, experienced Buyer; must have thorough knowledge of markets and sources raw materials. Please give particulars of experience, state salary required, and age, in first letter to 329/947, Office of this Paper.

### SITUATIONS WANTED

### RETAIL (HOME)

2s. for 18 words or less; 6d. for every additional 10 words or less, prepaid. (Box No., Is. extra.)

A SSISTANT, Part I, requires seasonal post in Cornwall, reliable Dispenser; accustomed high-class Counter trade. Philp, Trehaverne, Truro.

A SSISTANT, Unqualified, male (27), tall, conscientious, Counter and Dispensing: London or country. Hawkins, 60 Rosebery Gardens, Harringay, N.

A SSISTANT, Unqualified (32) desires change (London preferred); private and stores experience; capable and accurate Dispenser, Windows and Photo; free fourteen days. 214/46, Office of this Paper.

CHEMIST, with good all-round experience, desires post as Manager; good Salesman and Window-dresser; excellent references. 214/49, Office of this Paper.

CHEMIST (26), desires Managership; good all-round experience. Gordon, 31 Stamford Hill Mansions, N.16. Tel. Abbey 1487.

DISPENSER, young, seeks post, Hall qualification, Institution trained; careful; competent; Hospital or Institution preferred, not essential. 204/3, Office of this Paper.

### NAMES AND ADDRESSES

When sending advertisements for any of the columns of this Supplement, advertisers—as a guarantee of good faith and not necessarily for publication—should always give their names and addresses. It sometimes occurs that this rule is not adhered to and delay and disappointment ensue. Strict attention to this detail will be appreciated.

EXPERIENCED Unqualified Gentleman, all Pharmaceutical routine; religible, conscientious; permanency Midlands; Locum Aberystwyth district preferred but non-essential. 92 Wardend Road, Birmingham.

LADY Dispenser-Book-keeper (Hall), experience Hospital and Doctor (aged 38), available for post, preferably in Lancashire or Cheshire. Apply 212/1, Office of this Paper.

QUALIFIED, disengaged, efficient Manager; 15 years' experience; moderate salary if likely succession. Pharmacist, 46 Powerscroft Road, Clapton, E.5.

UNQUALIFIED (age 28) seeks position, July 6 until October; Birmingham district or West Coast; experienced town and country; splendid references and business ability. Broinley, 217 Wigan Road, Atherton, Manchester.

UNQUALIFIED Assistant (age 26), married, desires permanency, Manchester or Stockport; Dispensing, Window-dressing and Photographic; 11 years with present employer. 214/47, Office of this Paper.

YOUNG Pharmacist, desirous of obtaining further high-class Retail experience, desires permanent position; moderate salary if prospects good; Lancashire preferred; first-class references. 212/270, Office of this Paper.

### LOCUMS SEEKING ENGAGEMENTS

A CTIVE, energetic Assistant (46); tall; Unregistered; best experience in all capacities; locum or permanency; disengaged. Haigh, 37 Fairholme Road, Harrow.

DISENGAGED August 1-20; extensive experience; excellent references. M.P.S., 83 Abergele Road, Colwyn Bay.

LOCUM, competent all-round Assistant, Unregistered; free from June 27; experienced all branches Pharmacy West End, City, Seaside and Country (some Optics). A. C. R., 40 Shipbourne Road, Tonbridge, Kent.

PH.C., O.B.A.C., free July 4-17 as Chemist or Chemist-Optician; highly recommended. "Medicus," 91 Stamford Hill, N.16.

### WHOLESALE

A DVERTISER, having first-class experience as Manufacturer of Toilet Preparations and Cosmetics, seeks post or part-time; own formulary. 213/8, Office of this Paper.

CENT (28), now in retail, seeks position with firm of repute as Representative; personality, integrity, plus efficiency; connexion in Midlands; own car; would consider financial interest; interview any time. 214/37, Office of this Paper.

PILL Maker requires situation; all-round experience in Pill Department; knowledge of Tablets; good references. G. W. Lusher, 16 Leopold Road, East Finchley, N.2.

REPRESENTATIVE, having completed 9 years' successful Sales Representation for Leading Proprietary Toilet Goods House in Yorks and Lancs area, desires change; connexion all Chemists, Department Stores, etc.; car owner; highest credentials; resident Leeds. 328/922, Office of this Paper.

PEPRESENTATIVE, M.P.S., leading connexion for many years over all Ireland; Hospitals, Doctors, Chemists; first-class knowledge Therapeutics. Endocrinology, Sera, Vaccine Therapy; disengaged September. Chemist, 11 Cunningham Place, N.W.8.

REPRESENTATIVE, with good connexion London and Provinces, wishes for change; thorough knowledge all branches, Drugs, Toilet, Surgical and Photographic; good sales record; highest references; only reputable firms considered. Apply P.C.B. 286/24, Office of this Paper.

TRAINING, long experience, excellent records; health; address; car; Representative, Propagandist; salary and expenses. "Saggitarius," c/o Jackson, Rowan Avenue, Boothville, Northampton.

TRAVELLER in Eire (I.F.S.), with own car, calling on Chemists throughout the country, representing first-class English Wholesale Sundries House, requires additional non-competitive lines; commission basis. Box 1412, Eason's Advertising Service, Dublin.

WANTED by an experienced Representative working East and North London, other lines; several years' experience; lines must be advertised; terms by arrangement. P.C.B. 286/29, Office of this Paper.

YOUNG Man, well educated, with 14 years' retail experience, seeks progressive situation with established firm; modern Toilet and Veterinary experience; car owner. Cooper, "Penshurst," Pevensey.

YOUNG Qualified Pharmacist desires post with Wholesale or Manufacturing Chemist; first-class Retail, Manufacturing and Clerical experience; moderate salary if prospects good; excellent references; North preferred, but not essential. 212/27, Office of this Paper.

### COLONIAL, INDIAN AND FOREIGN

### EXPORT - MANAGER

DUTCHMAN, 37 years old, speaks 5 languages, thorough experience in the Essential Oil, Essences, Chemical and Pharmaceutical Trade, also of large-selling organizations, having travelled in CENTRAL EUROPE and SCANDINAVIA for the last seven years, wants to change position. Willing to travel or as a resident manager.

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(Articles to the value of £5-£50.)

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NATIONAL Cash Register; perfect condition; prints Sales and gives Total; been carefully used; bargain. Write W. Formby, 20 Edwards Road, E.S.

### **MISCELLANEOUS**

10s. for 60 words or less; Is. for every additional 10 words or less, prepaid. (Box No., Is. extra.)

CASH REGISTERS, NATIONAL, £10 to £25; over 100 firstclass machines to choose from; complete overhauls and repairs; estimates free; guaranteed genuine bargains; no reasonable offer refused. Satisfaction assured at AMALGAMATED
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POR DISPOSAL.—200 Dozen ½ min. Clinical Thermometers, Maglense (Smith & Co.), 6s. per doz., 6-doz. lots; delivered free, cash with order. Enquiries to Bargains Unlimited, 278 Dalston Lane, Hackney, E.8.

FOR SALE.—Double Crushing Mill, 16 in. wide, with fast and loose pulleys complete. No. 3 Perplex Type Grinder, also 2½ Size Christy Disintegrator. 328/934, Office of this Paper.

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TREBLES for New and Second-hand Fittings, Alterations, Shop Fronts, Glass Cases, Dispensing Screens, Counters, Drawers, Service Trays, Window Fittings, Wall Cases. Send your requirements. 549 Lea Bridge Road, Leyton, London, E.10. 'Phone: LEY 2370.

WANTED for Cash, Chemists' Stocks, also Surplus Goods and Manufacturers' discontinued lines of every description. Bargains Unlimited, 278 Dalston Lane, Hackney, E.8.

 $W^{\rm ANTED.-Gardner}$  Mixer, capacity 300 lbs. at a time.  $$328/936, {\rm\ Office}$$  of this Paper.

WANTED, second-hand collapsible tube-filling and closing machine, hand-operated, for 5/8 in. sample tubes. State maker, condition, and price carriage paid to Dr. Maurer, 69 Southwark Street, London, S.E.1.

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2d. per word, minimum 2s. (Box No., Is. extra.)

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### WANTED

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